

Contents

Contents

Preparedness	6
<i>All Hazards.....</i>	<i>6</i>
<i>Creating a Family Emergency Plan.....</i>	<i>6</i>
<i>Creating a Family Emergency Kit</i>	<i>7</i>
<i>Travel Safety.....</i>	<i>8</i>
<i>Learn How to Shelter in Place</i>	<i>8</i>
<i>Know Your Neighbors</i>	<i>10</i>
<i>Considerations for Children.....</i>	<i>11</i>
<i>Considerations for Seniors and Disabled</i>	<i>11</i>
<i>Considerations for Livestock.....</i>	<i>12</i>
<i>Considerations for Pets.....</i>	<i>14</i>
Recovery.....	16
<i>Treating Contaminated Water.....</i>	<i>16</i>
<i>School Water Outages.....</i>	<i>17</i>
<i>Information for Pet and Livestock Owners</i>	<i>18</i>
<i>Debris Removal and Demolition.....</i>	<i>20</i>
<i>Disaster Insurance Claim and Repair Process.....</i>	<i>22</i>
<i>Look Out for Fraud and Scams</i>	<i>24</i>
<i>Documenting and Reporting Damage.....</i>	<i>26</i>
<i>Individual Assistance.....</i>	<i>28</i>
<i>Public Assistance.....</i>	<i>30</i>
<i>Small Business Administration.....</i>	<i>30</i>
<i>Disaster Loans for Hoosier Assistance</i>	<i>31</i>
Utility Issues	37
<i>Preparing for a Utility Outage.....</i>	<i>37</i>
<i>Safety During a Power Outage</i>	<i>39</i>
<i>Beware of Carbon Monoxide Poisoning</i>	<i>41</i>
<i>Hoosiers Asked to Work Together to Cope with Heat</i>	<i>44</i>
Earthquakes.....	46
<i>What to Know About Earthquakes</i>	<i>46</i>
<i>Preparing Yourself and Your Family for an Earthquake.....</i>	<i>46</i>

Contents

<i>Preparing Your Home for an Earthquake</i>	47
<i>Preparing Your Community for an Earthquake</i>	48
<i>What to Do During an Earthquake</i>	49
<i>What to Do After an Earthquake</i>	50
<i>Beware of Aftershocks</i>	52
Thunderstorms	53
<i>Preparing for a Thunderstorm</i>	53
<i>What to Do During a Thunderstorm</i>	54
<i>What to Know About Lightning</i>	56
<i>Stormwater and Construction</i>	58
<i>Stormwater and Manufacturing</i>	59
Tornadoes	61
<i>Preparing for a Tornado</i>	61
<i>What to Do During a Tornado</i>	62
<i>What to Do After a Tornado</i>	63
Floods	65
<i>What to Know About Floods</i>	65
<i>Preparing For a Flood</i>	66
<i>Evacuating During a Flood</i>	68
<i>Never Drive Through Flood Waters</i>	71
<i>What to do before a Dam Failure</i>	72
<i>Staying Safe after the Rain Stops</i>	75
<i>Surviving a Landslide or Debris Flow</i>	76
<i>What to Know About Mudslides</i>	79
<i>Building Safety</i>	81
<i>What to Do After a Landslide or Debris Flow</i>	82
<i>First-Time Home</i>	85
<i>Cleaning Up</i>	87
<i>Avoiding Indoor Air Quality Problems</i>	92
<i>Protecting Yourself from Mold</i>	94
<i>Salvaging Food</i>	96
<i>Restoring Septic Systems</i>	97
<i>Disinfecting Wells</i>	99

Contents

<i>Flood-related Crop Damage</i>	102
<i>Get Flood Insurance</i>	103
<i>Flood Insurance Claim and Repair Process</i>	106
<i>Flood Insurance Consumer Alert</i>	108
<i>National Flood Insurance Program (NFIP)</i>	111
Extreme Heat	114
<i>What to Know About Extreme Heat</i>	114
<i>What to do during Extreme Heat</i>	116
<i>Preparing for Extreme Heat</i>	118
<i>Working Safely in Extreme Heat</i>	119
<i>Heat Emergency First Aid</i>	120
<i>Drought Time Water Conservation</i>	122
Winter Hazards	129
<i>What to do Before a Winter Storm</i>	129
<i>What to Do During a Winter Storm</i>	130
<i>What to Do During an Extreme Cold Emergency</i>	131
<i>Winter Driving Tips</i>	133
<i>Ice Safety</i>	135
<i>Evacuating Ahead of the Storm</i>	137
<i>High Winds Pose Additional Threats</i>	137
<i>Preparing for Power Outages</i>	139
Fire	141
<i>Keep Your Home Fire Safe</i>	141
<i>Disaster-related Fires</i>	145
<i>Protecting Your Home Before a Wildfire</i>	148
<i>What to Do Before a Wildfire</i>	151
<i>What to Do During a Wildfire</i>	152
<i>Surviving a Fire</i>	155
<i>Smoke Hazard</i>	158
<i>What to Do After a Fire</i>	160
<i>Smoke Alarms and Fire Extinguishers</i>	168
<i>Treating Burns</i>	170
<i>Use Caution with Alternative Heating Sources</i>	172

Contents

Building and Business Safety	174
<i>Be Informed.....</i>	<i>174</i>
<i>Continuity of Operations Planning</i>	<i>174</i>
<i>Emergency Planning for Employees</i>	<i>176</i>
<i>Emergency Supplies</i>	<i>177</i>
<i>Deciding to Stay or Go.....</i>	<i>178</i>
<i>Fire Safety</i>	<i>178</i>
<i>Medical Emergencies</i>	<i>179</i>
<i>Influenza Pandemic</i>	<i>179</i>
<i>Involve Co-workers</i>	<i>180</i>
<i>Practice the Plan.....</i>	<i>181</i>
<i>Promote Preparedness</i>	<i>181</i>
<i>Crisis Communication Plan</i>	<i>182</i>
<i>Employee Health</i>	<i>182</i>
<i>Review Insurance Coverage.....</i>	<i>183</i>
<i>Utility Disruptions.....</i>	<i>183</i>
<i>Secure Facilities.....</i>	<i>184</i>
<i>Secure Equipment.....</i>	<i>186</i>
<i>Building Air Protection</i>	<i>186</i>
<i>Cyber Security</i>	<i>187</i>
<i>Commuter Safety</i>	<i>189</i>
Terrorism.....	190
<i>Signs of Criminal and Terrorist Activity.....</i>	<i>190</i>
<i>Biological Threats</i>	<i>191</i>
<i>Chemical Threat Awareness.....</i>	<i>192</i>
<i>Nuclear Threat Awareness</i>	<i>193</i>
<i>Nuclear Threat Preparedness</i>	<i>194</i>
<i>Nuclear Blasts</i>	<i>195</i>
<i>Hazards of Nuclear Devices.....</i>	<i>195</i>
<i>Radioactive Fallout</i>	<i>196</i>
<i>Electromagnetic Pulse.....</i>	<i>196</i>
<i>Exposure vs. Contamination</i>	<i>197</i>
<i>Food Safety.....</i>	<i>197</i>

Contents

<i>Radiation Duration</i>	<i>197</i>
<i>Radiological Incident Talking Points.....</i>	<i>198</i>
<i>Public Safety and Protective Action Guidance</i>	<i>198</i>
<i>Situation Update.....</i>	<i>208</i>
<i>Exposure vs. Contamination and Decontamination.....</i>	<i>214</i>
<i>Infrastructure Damage.....</i>	<i>217</i>
<i>Emergency Response Capabilities</i>	<i>218</i>
<i>Environmental Monitoring.....</i>	<i>220</i>
<i>Population Monitoring.....</i>	<i>220</i>
<i>International Interest.....</i>	<i>221</i>
<i>Roles and Responsibilities.....</i>	<i>222</i>
<i>Radiation and Improvised Nuclear Device (IND) Overview</i>	<i>223</i>
<i>Health Effects of Radiation Exposure</i>	<i>228</i>
Bioterrorism	233
<i>Preparing for a Bioterrorist Attack.....</i>	<i>233</i>
<i>Create a Disaster Plan.....</i>	<i>234</i>
Special Events.....	237
<i>Halloween Safety Tips.....</i>	<i>237</i>
<i>Pool and Beach Safety.....</i>	<i>238</i>
<i>Amusement Ride Safety</i>	<i>239</i>
<i>Fireworks Laws and Safety Tips</i>	<i>239</i>
<i>Protect Yourself and Hoosier Forests by Following These Campfire Safety Tips</i>	<i>241</i>
<i>School Safety</i>	<i>243</i>
<i>Online Holiday Shopping Safety</i>	<i>244</i>

Preparedness

Preparedness

All Hazards

What you should do:

- Listen to NOAA all hazards radio, commercial radio or television newscasts for safety advisories and updates on this evolving situation.
- Follow the instructions of local officials so you can protect yourself, your family and your community.
- Remember elderly neighbors and neighbors with special needs or small children who may need help. If appropriate, offer assistance if you can do so safely.
- Reserve use of phone lines and cell phones for emergency calls only.
- Remember, text messages may be easier to send and receive than phone calls. If you have an out-of-state emergency contact, that person may be easier to reach than in-state contacts that are closer to the disaster site.
- Locate your emergency kit or quickly assemble one. Remember to include a three-day supply of food, water, medications and other essentials for each family member. If available, a flashlight, portable radio and extra batteries are important items to include.

Creating a Family Emergency Plan

- Discuss with your family what types of disasters could happen in your area; understand how they will affect you and how your community will notify you of the disaster.
- Include your children in your planning, practice your plans with them and quiz them to make sure they understand what to do. Always stress that this is a “just in case” plan.
- Teach your children how to make long-distance telephone calls and how to dial 9-1-1 for emergency assistance.
- Pick two places where your family will reunite after an emergency: a place near your home and a place away from home in case you cannot return home after an emergency.
- Make sure everyone knows the addresses and phone numbers of both meeting places.
- Know and practice all possible exit routes from your neighborhood.

Preparedness

- Check to make sure you have adequate insurance coverage.-Make a record of your home possessions to help you claim reimbursement in case of loss or damage. Store this information with your family records.
- Put important family records (birth certificates, healthcare records, passports, etc.) in a safe place, such as a fireproof and waterproof safe or a bank safety deposit box.
- Get a copy of your child's school or daycare emergency plans.
- Make plans for where you can meet your child after an evacuation.
- Make sure that the school has up-to-date contact information for you and other family members.
- Authorize a friend or family member to pick up your child in an emergency if you are unable to do so.
- Identify an easily accessible location in your home to store your emergency kit and make sure everyone in the home is aware of the location.
- Create an emergency contact list.-Prepare your home by installing smoke detectors on each level of your home, installing carbon monoxide detectors near sleeping areas, moving beds away from windows, clearing hallways and exits, keeping a fire extinguisher on each level and knowing how and when to use them, storing flammables/highly reactive chemicals securely and separate from each other and knowing how and when to switch off your utilities.

Creating a Family Emergency Kit

- Preparing an emergency kit can save precious time if you must evacuate or seek shelter. It may take emergency personnel up to three days to reach you; therefore, the kits should be designed for three days.
- Your kit should include: a three-day water supply (three gallons), Food which requires no preparation, refrigeration, and very little water if any; a first aid kit (latex gloves, scissors, tweezers, petroleum jelly, sterile dressings, eye wash solution, burn ointment, sunscreen, soap, bandages, over-the-counter pain reliever, anti-diarrhea medication, antacids, laxatives, thermometer, prescription medications for at least one week and a list of family physicians, important medical info.).
- You may also want to include a battery-operated or hand crank flashlight, battery- operated or hand crank radio, a cell phone with battery-operated or hand crank charger, extra batteries,

Preparedness

wrench and/or pliers to turn off utilities, an extra set of eye glasses, whistles to signal help, blankets, ID cards, extra sets of keys, etc.

Travel Safety

- Pack essential items, such as: high protein snacks, water, first aid kit, flashlight, small battery-operated radio, an emergency contact card with names and phone numbers, extra prescription medications and important documents or info you may need.
- Let family and friends know your itinerary. Make sure family members or friends know where you will be staying and how to reach you. In a disaster situation, you can register on the Safe and Well website on www.redcross.org, so family and friends have access to this information.
- Make a plan. Find out what the disaster safety procedures are where you are staying. Identify how you would get out of the building in case you need to evacuate. Also, locate safe places inside should you need to take cover during a disaster, such as an earthquake or tornado.
- Have emergency numbers ready.
- Before you travel, learn about the area you are visiting. Find out what disasters may occur in the place where you are traveling, especially if they are disasters you have never experienced before.
- Pay attention to the forecast. Travel and weather websites can help you avoid storm seasons, severe heat and other regional challenges that could impact your safety.

Learn How to Shelter in Place

Shelter in place means to take immediate shelter where you are. It also may mean to “seal the room” or to take steps to prevent outside air from coming in. Here are some steps on how to prepare:

At home:

- Choose a room in advance for your shelter. The best room is one with as few windows and doors as possible. A large room, preferably with a water supply and telephone, is desirable. A master bedroom connected to a bathroom is an excellent choice.
- Contact your work places, your children’s school, nursing homes where you may have family and your local town or city officials to find out what their plans are for “shelter in place.”
- Find out when warning systems will be tested. When tested in your area, determine whether you can hear or see sirens and/or warning lights from your house.

Preparedness

- Develop a family emergency plan so every family member knows what to do. Practice regularly.
- Assemble a disaster supplies kit that includes emergency water and food supplies.

At work:

- Ensure that the emergency plan and checklist involve all employees. Volunteers or recruits should be assigned specific duties during an emergency. Alternates should be assigned to each duty.
- The shelter kit should be checked on a regular basis. Duct tape and first aid supplies can sometimes disappear when all employees know where the shelter kit is stored. Batteries for the radio and flashlight should be replaced regularly.

If you are told to shelter in place:

- Immediately go inside and do not leave unless you are asked to do so.
- Shut off heater and air conditioners.
- Make sure all fireplace dampers are closed.
- Go to your shelter room and cover all doors, windows and vents with 2-4 mm thick plastic sheeting.
- Cut the plastic at the corners first and then tape down the edges.
- If harmful air is leaking into your home, cover your nose and mouth with a wet cloth or towel.
- Tune in to your local TV or radio stations to learn more about the emergency.
- Do not make phone calls unless they are 100% necessary, leave phone lines open for emergency organizations.
- Only call 9-1-1 if there is an injury or other immediate emergency. Do not call 9-1-1 for information on the status of the emergency.

If you are not at home:

Follow the same steps that are appropriate for your home.

- If you are in your car, make sure you have all outside vents, windows and doors closed.

Preparedness

- If you are outside, cover your nose and mouth with a handkerchief or cloth. Remember the chemical is moving with the wind. Do not walk into it or with it. You should move crosswind with the wind at your side. Find shelter as soon as possible.

Know Your Neighbors

Strategies for building a strong, emergency-ready neighborhood:

- Introduce yourself to your neighbors. Emergency planning will go more smoothly once all neighbors are acquainted.
- Join your local neighborhood watch or the neighborhood safety group. If there is not one, you or someone you support could be the catalyst to get one started. Think of this as a community engagement strategy. Become an active contributor to your community.
- Take detailed notes about each neighbor's skills. Knowing who is a doctor, nurse or electrician will help the neighborhood assign post-emergency tasks to those best suited to them.
- Keep a list of neighbors with special needs. Elderly neighbors may need extra help escaping their homes after an emergency.
- Create a list of important medical conditions of children in the neighborhood. Knowing about medical conditions ahead of time will help you prioritize first-aid administration.
- Know how to turn off the utilities for your own home. Preventing fire at your house will save neighbors' homes as well.
- Host a meeting to discuss and teach others how to turn off utilities in the home after an emergency.
- Draw a neighborhood map and mark off the locations of the gas, water and electrical shutoffs for each home. Neighbors may be absent or otherwise unable to turn off their utilities themselves after an emergency.
- Assemble an emergency preparedness kit for your own family. Encourage your neighbors to do so as well, and show them what should be included.
- Give trusted neighbors keys to your house and make sure they know how to turn off your utilities.
- Make sure neighbors have a list of important phone numbers.
- Work with your neighbors to develop a list of local shelters including schools and school gyms which are often used as temporary shelters after an emergency.

Preparedness

- Appoint a person who will locate and gather children from schools as necessary. Supply this person with a list of all neighborhood youths and the locations of their schools and alert school officials to the identities of all persons authorized to collect each child.
- Elect a damage-assessment team. This group of neighbors will be responsible for evaluating any potential hazards existing after the emergency and minimizing them.

Considerations for Children

Planning tips for children:

- Take the feelings of your children seriously. Children are used to their daily routines, so when emergencies or disaster interrupt this routine, children may become anxious.
- Your family may not be together when disaster strikes, so it is important to plan how you will contact one another and what you will do in different situations. Make sure your children know how to dial 9-1-1; their name, phone number and address; how to reach parents and other family members; contact information for the family's out-of-state contact; and how to make long-distance phone calls.
- It is important to include your emergency kit items for children, such as toys, coloring books and other forms of entertainment.
- Remember baby items such as food, formula, diapers, wet wipes, etc.
- Work together with your children and quiz them when it comes to your disaster kit and plans. Make sure they understand that the plans are "just in case."
- Children watch the news and react according to the people around them. During a disaster watch your children for signs of stress and trauma.
- Adults should watch TV reports about disasters when children are busy with other things.

Considerations for Seniors and Disabled

- Create a personal support network of family and friends who can help you in an emergency.
- Make arrangements prior to an emergency for your support network to immediately check on you after a disaster and, if needed, offer assistance.
- Exchange important keys and show where you keep emergency supplies.
- Share copies of your relevant emergency documents, evacuation plans and emergency health information card.

Preparedness

- Agree and practice a communications system regarding how to contact each other in an emergency. Do not count on the telephones working.
- You and your personal support network should always notify each other when you are going out of town and when you will return.
- The relationship should be mutual. Learn about each other's needs and how to help each other in an emergency.
- Plan to make it on your own, at least for a period of time. It is possible that you will not have access to a medical facility or even a drug store immediately following a disaster incident.
- If you undergo any regular medical treatments or if you require home health care services, talk to your service provider about its emergency plans.
- If you are dependent on electricity for a wheelchair or any life-sustaining device, consult your power provider.
- Keep a list of copies of important documents in your emergency kit along with phone numbers of people in your support network.
- Keep emergency cash or travelers checks on hand.
- Switching to electronic payments is one simple, significant way people can protect themselves financially before disaster strikes, if you are dependent on the mail for Social Security benefits.
- If you are vision-impaired, deaf or hard of hearing, plan ahead for someone to convey essential emergency information to you if you are not able to use the TV or radio.
- If you live in an apartment, ask management to identify and mark accessible exits and all areas designated as emergency shelter or safe rooms. Ask about plans for alerting and evacuating those with sensory or mobility disabilities.

Considerations for Livestock

- Familiarize yourself with potential disaster risks specific to your area.
- Survey your property for the best location for animal confinement in each type of disaster. Identify food and water sources that do not rely on electricity.
- Decide where to take animals if evacuation is necessary. Contact fairgrounds, other producers, stockyards and auction markets about their policies and ability to temporarily house livestock in an emergency. Have several sites in mind, in case your first choice is unavailable.
- Familiarize yourself with several, less well traveled, evacuation routes to your destination.

Preparedness

- Photograph, identify (brands, ear tags, noise prints, etc.) and inventory your animals. Identify in a written list which animals are of the highest priority and most valuable in the event only some of them can be saved. Make sure others know your plans. Keep copies with other important papers.
- Keep vaccinations and boosters up to date. Record the dates, dosages and types of medications and health products the animals have received. Record dosing instructions and dietary requirements. Keep this info with your disaster plan.

Create an emergency disaster kit and include:

- Portable radio
- Extra batteries
- Animal restraint equipment
- Water bucket
- Portable generators
- First aid kit
- Stored feeds
- Flashlights
- Sharp knife
- Wire cutters
- Ropes, halters
- Bleach, lime

During a disaster:

- If possible, evacuate your livestock early to ensure their safety and protect your investment.
- If you evacuate your livestock, take all vaccination and medical records, the emergency disaster kit and enough hay, feed and water for a minimum of 48 hours.
- Remember basic bio-security measures if your herd is under quarantine or has a communicable disease when you evacuate
- If you must evacuate without your animals, leave them in the preselected area appropriate for the disaster type. Leave enough hay, food and water for 48-72 hours. Do not rely on automatic watering systems; power may be lost.

Preparedness

After a disaster:

- Check fences; be sure they are intact. Check pastures and fences for sharp objects that could injure livestock and beware of downed power lines.
- Beware of wild animals that may have entered the area and could pose a danger to your animals.
- If animals are lost, contact veterinarians, human societies, stables, surrounding farms and other facilities. Listen to the emergency broadcast system for groups accepting lost animals.
- Check with your veterinarian and state board of animal health for information about possible diseases outbreaks.

Considerations for Pets

Create an emergency kit for your pet, including:

- ID collar and rabies tags.
- Current photo (in case they may be lost).
- Carrier and leash.
- Medications.
- Newspapers and plastic trash bags.
- Information on feeding schedules, medical conditions, behavior problems and the name and number of your veterinarian in case you have to foster or board your pets.
- At least a three-day supply of food and water.
- Items specific for your pet, such as cat litter/pan.
- Pet bed or toys if easily transportable.

In the event of evacuation, have a safe place to take your pets:

- Local and state health and safety regulations do not permit the Red Cross to allow pets in disaster shelters. Service animals which assist people with disabilities are the only animals allowed in Red Cross shelters.
- Contact hotels and motels outside your local area to check their policies on accepting pets and restrictions on number, size and species. Ask if “no pet” policies could be waived in an emergency. Keep a list of “pet friendly” places, including phone numbers, with your other

Preparedness

disaster information and supplies. If you are alerted to an impending disaster, call ahead for reservations.

- Ask friends, relatives or others outside the affected area whether they could shelter your animals. If you have more than one pet, they may be more comfortable if kept together, but be prepared to house them separately.
- Make a list of boarding facilities and veterinarians who could shelter animals in an emergency; include 24-hour phone numbers.
- Ask local animal shelters if they provide emergency shelter or foster care for pets during a disaster. Animal shelters may be overwhelmed caring for the animals they already have as well as those displaced by a disaster, so this should be your last resort.

Recovery

Treating Contaminated Water

It is essential to confirm that the water supply is safe to drink. Listen to news reports to learn whether the community's water supply has been contaminated by floodwaters. In emergencies, or as a temporary measure, water from contaminated or suspect sources can be disinfected by either chlorination or boiling. You can also visit www.IN.gov/dhs/files/water_treatment.pdf for more information.

Secure safe drinking water from an approved or emergency source if possible. If not, treat ALL water before drinking. If tap water is not clear, it should not be used. If a less turbid water source cannot be located, first allow the water to stand in a container until the sediment settles and pour off the clear water into a clean vessel. Then either chlorinate or boil the water as instructed below by the Indiana State Department of Health:

Chlorination:

- Add six drops of liquid chlorinating laundry bleach to one gallon of water and mix. Chlorine bleaches are inexpensive and can be secured from most grocery, discount or drug stores.
- Wait 30 minutes after adding the chlorine before using the water for drinking or cooking purposes.
- If this treatment does not give the water a taste of chlorine, the above quantities should be doubled. Repeat the addition of chlorine until a slight taste of chlorine is present and use this amount for future treatments. The taste of chlorine is not particularly unpleasant and it will be evidence that the water is safe to drink.

Boiling:

- Bring the water to a full boil for at least five minutes. Cool and aerate the boiled water by pouring it through the air from one clean container to another, or mixing rapidly with a clean utensil.
- Aeration will reduce the flat taste caused by boiling

Recovery

School Water Outages

Rule 410 IAC 6-5.1, the Sanitary Schoolhouse Rule, requires that safe, potable water from an approved source be supplied to all fixtures at all times when a school is occupied. Therefore, unless buses are en route, no school shall open without an adequate supply of potable water at useable pressures. Water pressure will be adequate if water fixtures operate as designed. However, if either water pressure is lost or a boil water order has been issued sometime during the school day, then students and parents are better served if the school remains open for the rest of that day. Depending on the scenario, one of the following applies:

In the case of a water outage:

- Provide bottled drinking water and hand sanitizer for use by students and staff at all times.
- Use bulk water from an outside source to periodically flush the toilets and urinals throughout the day.
- Use the following alternative procedures to minimize water usage during the day:
 - Commercially packaged ice may be used instead of ice made on-site.
 - Single-service items like paper plates, cups and disposable utensils if food is to be served.
 - Serve food prepared by other approved sources instead of preparing food on site.

In the case of a boil water order:

- Provide bottled drinking water and hand sanitizer for use by students and staff at all times.
- Leave the toilets and urinals in operation.
- Cease using showers, drinking water fountains and hand sinks.
- Cease using directly plumbed carbonated fountain drink machines, beverage “gun” dispensers, machines that manufacture ice and low-temperature/chemical sanitizing dish machines.
- Cease using piped water to make beverages such as coffee, tea, reconstituted milk or fruit drinks.
- Cease using piped water to wash produce or to make food or ice.
- Cease using piped water to wash or sanitize food contact surfaces or to sanitize wiping cloths.
- Hot water sanitizing dishwashing machines can be used if they are checked to ensure that the final rinse reaches a temperature of 180°F, minimum. Likewise, directly plumbed coffee

Recovery

makers can be used if they are checked to ensure that the brewing temperature reaches 180°F minimum.

In either scenario, if lunch will be served, food preparation must be reduced to manageable levels commensurate with the availability of potable water. The local health department must be contacted as soon as possible so it can address meal preparation in greater detail.

Finally, parents, students and teachers should be notified as soon as possible about the event, and what the school has done to address the problem, via student take-home fliers or the local news media. Otherwise, rumors may be rampant.

Information for Pet and Livestock Owners

According to the Indiana State Board of Animal Health (BOAH), flooding can be the source of a number of diseases and contaminants that can sicken or kill animals. Toxicants, pollutants and infectious disease agents are carried by floodwaters and these pollutants can cause a wide variety of diseases. Extra precautions should be taken to protect livestock and pets. Animals may come in contact with contaminated feed, drinking water or their environment. Owners need to reduce potential exposures by taking additional protective steps.

Lost or dead pets:

- If there is a lost pet on or around your property, contact the local animal control or animal shelter.
- Animal control and shelters that need assistance with evacuated or displaced animals should contact local emergency management or BOAH.
- If there is a dead animal on or around your property, it should be disposed of properly. Check for any identification or tags and report that information to the local animal control shelter so the information will be available for the owners. Contact your local authorities or veterinarian to see if there is a collection point for dead pets.
- As an alternative for small animals (like birds), use rubber gloves and double-bag the animal in leak-proof containment. Dispose of the animals in your garbage.
- For larger animal disposal (like cats and dogs), use proper handling and bury the animal.

Lost or dead livestock:

Recovery

- Check for any identification such as ear tags, and contact BOAH at 1-317-227-0300.
- For your own dead livestock, BOAH has approved four carcass disposal methods: burial, incineration, composting and rendering. Producers must be sure to document losses before disposing of dead animals. Please refer to Technical Bulletin LG-1.97 at www.IN.gov/boah.

Livestock management:

- Report all livestock, crop and equipment losses to your local United States Department of Agriculture Farm Services Agency office as soon as reasonably possible. This information will be needed to support state government requests for an agricultural disaster declaration.
- Remove large amounts of pooled water in close proximity of livestock.
- Remedy flood-related hazards to livestock. Debris may be washed into pastures or feedlots. Fences may be damaged or destroyed. Restricting access to these areas can reduce physical injuries.
- If you notice an unusual illness or clinical signs, such as vomiting or diarrhea, in your animals contact your veterinarian for guidance.

Food and water supplies:

- Provide fresh, clean drinking water. Floodwaters can wash chemical from other areas into wells, ponds and streams, or even pool in places where animals drink. Stock tanks suspected of contamination should be emptied and cleaned.
- Until tested, wet feed should be presumed harmful to animals. Feedstuffs may contain contaminants from floodwater and/or mold spores that sometimes produce dangerous toxins.
- As soon as possible, dry grain should be removed and stored separately.
- Silage should be disposed of in proper manner. Damp silage has an increased risk for mycotoxin contamination due to poor fermentation and may also contain higher levels of coliform bacteria. Producers may send samples of feed and silage to either of Indiana's Animal Disease Diagnostic laboratories to test for aflatoxins and mycotoxins. Laboratories are located at Purdue University and in Dubois, IN.
- For assistance with feed or chemicals affected by flooding, contact the Office of the Indiana State Chemist at www.isco.purdue.edu.
- To report or request assistance regarding a manure or chemical spill, contact the Indiana Department of Environmental Management.

Recovery

Dairy facilities:

- If the outlet valve was submerged in floodwater, or electricity was lost, any milk left in the bulk tank will need to be properly disposed.
- All milking parlor equipment contaminated by floodwater needs to be cleaned and sanitized prior to use. Contact your BOAH dairy inspector or dairy cooperative field individual for further information.
- Any cows left standing in water need to be given proper attention during the udder preparation prior to milking.
- Wash and sanitize all walls, floors and processing equipment at dairy processing plants.
- Any product, raw or finished, that may have exceeded legal temperature needs to be properly disposed of.
- Any finished product or ingredient that has come in contact with the floodwater must be disposed of properly.
- If a product has been stored for more than 72 hours, contact BOAH on an emergency, case-by case basis.

Meat processing and slaughter facilities:

- Before resuming operations, the plant manager must see that the plant is cleaned to the standards required by their plant's BOAH-approved Safety and Sanitation Operating Procedure.
- If your water supply may have become contaminated by floodwaters, potable water must be used in areas where animals are slaughtered, eviscerated and dressed.
- Potable water must also be used where edible products are processed, handled and stored.
- The potable water distribution system within the facility must preclude contamination of the water supply.

Debris Removal and Demolition

Public property debris removal:

- Eliminate an immediate threat to lives, public health and safety.
- Eliminate immediate threats of significant damage to improved public or private property.

Recovery

- Ensure the economic recovery of the affected community to the benefit of the community at-large.
- Mitigate the risk to life and property by removing substantially damaged structures and associated appurtenances as needed to convert property acquired through FEMA hazard mitigation program to uses compatible with open space, recreation or wetlands management practices.

Examples of eligible debris removal activities:

- Debris removal from a street or highway to allow the safe passage of emergency vehicles and debris removal from public property to eliminate health and safety hazards.

Examples of ineligible debris removal:

- Removal of debris, such as tree limbs and trunks, from natural wilderness areas; pre-disaster sediment from engineered channels; and debris from a natural channel, unless the debris poses an immediate threat of flooding to improved property.

Private property debris removal: it is generally ineligible because it is the responsibility of the individual property owner.

- If property owners move the disaster-related debris to a public right-of-way, the local government may be reimbursed for curbside pickup and disposal for a limited period of time.
- If the debris on private business and residential property is so widespread that public health, safety or the economic recovery of the community is threatened, FEMA may fund debris removal from private property, but it must be approved in advance by FEMA.

Public property demolition: demolition of disaster-damaged structures may be eligible for emergency work assistance if the work is necessary to:

- Eliminate an immediate threat to lives, public health or safety.
- Eliminate immediate threats of significant damage to improved public or private property.
- Ensure the economic recovery of the affected community to the benefit of the community-at-large.

Recovery

- Mitigate the risk to life and property by removing substantially damaged structures and associated appurtenances as needed to convert property acquired through a FEMA hazard mitigation program to uses compatible with open space, recreation or wetlands management practices. Eligible activities include demolition of the facility superstructure, filling in of open below-grade structures (basements, swimming pools) and other activities, including capping of wells and pumping and capping of septic tanks.

Private property demolition: As with debris removal from private property, demolition of private structures requires approval by FEMA prior to start of work and agreement by the local government to save and hold the federal government free from damages due to performance of the work. Demolition work also requires condemnation by an authorized local official in accordance with state and local law.

- Examples of ineligible demolition activities include: removal of slabs or foundations that do not present a health or safety hazard (except for structures in a FEMA-funded buyout program); removal or covering of pads and driveways (except FEMA-funded buyout structures); demolition of structures condemned as safety hazards prior to the disaster; demolition of threatened but habitable structures; and demolition activities eligible for permanent work assistance when the work is required in support of eligible repair, replacement or reconstruction of a project.

Disaster Insurance Claim and Repair Process

Preparing to file a claim:

- Separate damaged items from undamaged items. If necessary, place items outside the home.
- Local officials may require the disposal of damaged items. Keep a swatch or other sample of the damaged items for the adjuster.
- Make a list of damaged or lost items and include their age and value where possible. If possible, supply receipts for lost items to the adjuster. This may be required by your policy and is necessary for the adjuster to investigate and settle your claim.
- If you have damage estimates prepared by a contractor, provide them to the adjuster since they will be considered in the preparation of your repair estimate.
- Take photos of any water in the house and damaged personal property as evidence for the adjuster to use to prepare your repair estimate.

Recovery

- Take a photo inventory of your personal property, such as clothes, jewelry, furniture, computers and audio/video equipment. Photos and video of your home, as well as sales receipts and the model and serial numbers of items, will make filing a claim simpler.
- Policies require that you cooperate with the adjuster or representative in the investigation of your claim. Within 60 days of loss, you will need to file a “proof of loss” which is your signed and sworn statement of the amount you are claiming under your policy. The adjuster assigned to your loss or your agent can assist you with this.

Filing a claim:

- An insurance policyholder should immediately report any disaster loss to their insurance company or agent. A claim adjuster will be assigned to inspect the structure, estimate the costs of repair and send the estimate to the insurance company for review and payment approval.
- Call your insurance company if an adjuster has not been assigned to you within several days.
- A policyholder will be required to submit a proof of loss as part of the claim package. A proof of loss is the policyholder’s valuation of the damages and is a sworn statement made by the policy holder substantiating the insurance claim. The proof of loss is required within 60 days of the loss.
- Proof of loss will be required on both the building loss and the contents, should there be coverage for both. The insurance company will usually provide a proof of loss form and in most cases prepare the form based on the adjuster’s estimate of repair.

Damage estimate discrepancies between you and the adjuster:

- A policy holder who disagrees with the final figures can submit his/her own “proof of loss,” or when signing and returning the company’s proof of loss, simply send a letter outlining why he/she does not agree with the amount offered by the company. It is essential the document be sent to the insurance company because until the proof of loss package is received, the insurance company will be unable to issue a payment to the insured.
- An important point to keep in mind is that the policyholder doesn’t have to accept the initial estimate of the damage prepared by a claims adjuster. If the policyholder believes the claims adjuster did not cover all damages in the estimate, the policyholder can make a claim for the additional damages as long as the additional losses are claimed in the proof of loss and submitted within 60 days of loss.

Recovery

- Insurance company adjusters, independent adjusters and repair contractors all use software programs developed to write itemized estimates on repair of structures. If any insurance company and the contractor are in agreement on the repairs needed, there should be little difference in the final cost of the repairs. These estimating programs are based on national data which is continuously updated with material and labor costs in different areas of the country so they stay up-to-date.

Damage estimate discrepancies between the adjuster and the contractor:

- Discrepancies between a contractor's price for repairs and an insurance adjuster's estimate could happen for several reasons:
- Remote areas raise problems with calculating repair costs because there are few, if any, local contractors. When contractors are forced to drive long distances to make repairs, labor costs rise.
- Disasters may create a spike in material costs due to shortages and demand.
- The adjuster may have missed damage during the inspection process or damage was hidden from view. These oversights may require a second inspection.
- Although it is rare, there have been cases of some repair contractors taking advantage of disaster situations to inflate repair costs.
- If a policyholder finds his/her contractor's estimate is more than the claims adjuster's estimate, the policyholder needs to notify the insurance company immediately so the claims adjuster can meet with the contractor to resolve whatever differences.

Look Out for Fraud and Scams

Always:

- Ask for ID. If someone represents themselves as a federal employee, such as an inspector, but doesn't produce identification, ask to see it. A FEMA or U.S. Small Business Administration shirt or jacket is not absolute proof of someone's affiliation with the government. Federal employees carry official photo identification.
- Safeguard personal information. Do not give personal information such as social security and bank account numbers to individuals claiming to be affiliated with the federal government. FEMA inspectors never require this information.

Recovery

- FEMA representatives are never allowed to accept money. If someone claiming to be a federal employee or contractor attempts to collect money for their help, report the person and their vehicle number to your local police department.
- Be suspicious of anyone who offers to increase the amount of your disaster damage assessment.
- The American Red Cross will never call and ask for money for disaster relief services. If anyone calls or shows up at your home representing themselves as part of the American Red Cross and asks for money, report the contact to local law enforcement immediately.
- If you need help with disaster recovery services, call 2-1-1 or the Red Cross at 800-696-3873. Either of those organizations will connect with legitimate assistance

Protect your identity:

- Release social security numbers only when absolutely necessary because they are key to your credit and banking accounts.
- Do not have your social security number printed on your checks or driver's license.
- When ordering new checks, have them delivered to your bank instead of your home address.
- Reduce the number of credit cards you actively use and cancel all unused accounts.
- Keep a list or photocopy of all credit card information including telephone numbers of the customer service departments. If fraudulent charges appear on one of your accounts call the Consumer Credit Counseling Service for help in clearing false claims on your credit report.
- Shred pre-approved credit applications, credit card receipts, bills and other financial information before throwing them into the trash.
- If you are a victim of identity theft, call the credit reporting bureaus, banks and creditors to put a "Fraud Alert" on your account. Insist on a police report because you need a case or incident number to proceed and contact the Federal Trade Commission at www.consumer.gov/idtheft.

When hiring a contractor:

- Research. You may also check with the local Better Business Bureau, homebuilders' association or trade council to see if the contracting firm has unanswered complaints against it.
- Check references. Contractors should be willing to provide names of previous customers. Call several former customers who had similar work done to make sure they were satisfied with the job.

Recovery

- Ask for proof of insurance. If a contractor is uninsured, you may be liable for accidents on the property. Make sure the contractor has disability and workers' compensation insurance.
- Ask for a written estimate and check to make sure it includes all the work you expect to have done, as well as taxes and other fees. Keep in mind that some contractors charge for an estimate.

Once you decide to use a particular contractor:

- Ask for a written contract, including all tasks to be performed as well as associated costs, a timeline, payment schedule and who is responsible for applying for necessary permits and licenses. Never sign a blank contract or one with blank spaces. Consult an attorney to review the contract if substantial costs are involved and keep a copy for your records.
- Ask for a written guarantee. It should state what is guaranteed, who is responsible and how long the guarantee is valid.
- Obtain a local building permit, if required. Permits may be required for site work other than demolition and for reconstruction. Contact your local government for permit information.
- Do not make advance payment in cash. Pay by check in order to keep a record and avoid double charges. A reasonable down payment is 30% of the total cost of the project, to be paid upon initial delivery of materials. Federal law gives consumers a three-day "cooling off" period after unsolicited door-to-door sales of more than \$25.
- Make final payment when the work is completed. Do not sign completion papers or make the final payment until the work is completed to your satisfaction. A reputable contractor will not threaten you or pressure you to sign if the job is not finished properly.
- If necessary, cancel a contract in the proper manner. This should be done within three business days of signing. Be sure to follow the procedures for cancellation that are set out in the contract. Send the notification by registered mail with a return receipt to be signed by the contractor.

Documenting and Reporting Damage

When severe weather strikes, your first priority is to ensure your safety and the safety of your family. Once the imminent threats have ended and you are out of danger, the recovery process can begin. Follow these steps when you are ready to begin documenting and reporting damage to you home and personal items.

Recovery

Record the damage:

- Prepare a comprehensive list of all damage sustained on your property. Include damage to your residence or other structures, landscaping and personal belongings.
- Include a detailed description of the kind and extent of property damage incurred, and supplement these descriptions with photographs or sketches.
- When possible, include documents of ownership such as titles for vehicles, property and large machinery. If such documentation is unavailable, estimate the pre-damaged value of each item on your list.
- When recording damaged or lost belongings, list the quantity of each item, a description, brand name, where purchased, its cost, model and serial number (if appropriate) and your estimate of the loss amount. Attach your bills, receipts, photos and any other documents.

Record all cleanup efforts:

- Do all you can to protect undamaged property. However, prior to signing an agreement/contract with a cleaning, remediation or maintenance contractor, you should consult with your insurer concerning coverage.
- Don't throw anything away before an insurance adjuster or damage inspector has seen it, unless local law requires you to. In that case, take photos of the property before disposing of it and keep samples for the adjuster or inspector to see (For example, cut out a piece of wall-to-wall carpet.).
- Keep all receipts for any work done to repair damage or for items purchased to replace belongings.

Reporting damage if you are uninsured:

- All uninsured damage should be reported to the Indiana Department of Homeland Security (IDHS). A link to the form will be available on the IDHS website at www.in.gov/dhs

Reporting damage to your insurance company; when you contact your insurance agent or company representative to report your loss, have the following information ready:

- The name of your insurance company and your policy number.
- A phone number and/or email address where you can be reached.

Recovery

- A brief summary of the damage and the date it was sustained.
- Many insurance policies require you to give prompt written notice of loss. Get in touch with your insurance agent or company representative as soon as possible. They will advise you how to file your notice of claim.

Individual Assistance

The Human Services Branch administers Individual Assistance as provided under federal law during a Presidential Declared Disaster (PL93-288 as amended by PL100-700). The Other Needs Assistance (ONA) program is part of the FEMA Individuals and Households Program (IHP) and replaces the Individual and Family Grant Program.

These programs provide assistance in disaster recovery with grants for home repair, rental assistance and personal property lost or damaged during the disaster.

The ONA program works closely with the American Red Cross, Salvation Army, local unmet needs committees, U.S. Small Business Administration, National Flood Insurance Program (NFIP) and various state and local agencies.

Overview of the IHP Program:

Individual Assistance (IA) PURPOSE:

- When disasters take place, the IHP program provides money and services to people in the disaster area when losses are not covered by insurance and property has been damaged or destroyed.
- IHP funded by FEMA is designed to help you with critical expenses that cannot be covered in other ways.
 - LIMITATIONS: IHP will not cover all of your losses from damage to your property (home, personal property, household goods) that resulted from the disaster.
IHP is not intended to restore your damaged property to its condition before the disaster. In some cases, IHP may only provide enough money, up to the program limits, for you to return an item to service.
- IHP does not cover business-related losses that resulted from the disaster.

Recovery

By law, IHP cannot provide money to you for losses that are covered by your insurance.

While some money is available through IHP, most disaster aid from the federal government is in the form of loans from the Small Business Administration (SBA) that must be repaid. Applicants to IHP may be required to seek help from SBA first, before being considered for certain types of IHP help. You do not have to submit an SBA loan application to be considered for FEMA rental assistance.

Types of assistance:

- Temporary housing (a place to live for a limited period of time): Money is available to rent a different place to live or a government-provided housing unit when rental properties are not available.
- Repair: Money is available to homeowners to repair damage from the disaster that is not covered by insurance. The goal is to make the damaged home safe, sanitary and functional.
Replacement: Money is available to homeowners to replace their home destroyed in the disaster that is not covered by insurance. The goal is to help the homeowner with the cost of replacing their destroyed home.
- Permanent/semi-permanent housing construction: Direct assistance or money for the construction of a home. This type of help occurs in insular areas or remote locations specified by FEMA, where no other type of housing assistance is possible.

Other needs: Money is available for necessary expenses and serious needs caused by the disaster. This includes medical, dental, funeral, personal property, transportation, moving and storage and other expenses that are authorized by law.

Individual Assistance Damage Assessment Tool (igms) (activated only during damage assessment process)

- Preliminary Damage Assessment Field Guide
- Damage Assessment Matrix (FEMA/SBA Standards)
- Damage Assessment Sheet

Damage Assessment Procedures for Individual Assistance:

- Situation is monitored by IDHS/EOC and has close contact with the county EOC

Recovery

- Once damaged areas are identified, surveyed and the results reported to IDHS, the county is contacted for a Preliminary Damage Assessment verification survey with the county and state IDHS officials.
- If enough damages were found and enough damage has been verified in the state to be significant in number county, state and federal agencies conduct a Joint Preliminary Damage Assessment (JPDA).
- FEMA will evaluate the information gathered and verified during the JPDA. If the verified damage and impacts warrant federal assistance, the governor will send a letter to the President requesting a disaster declaration based on the JPDA findings.

Public Assistance

The Public Assistance Program provides supplemental federal disaster grant assistance for the repair, replacement or restoration of disaster-damaged, publicly owned facilities and the facilities of certain Private Non-Profit (PNP) organizations. The federal share of assistance is not less than 75% of the eligible cost for emergency measures and permanent restoration. The state determines how the non-federal share (up to 25%) is split with the applicants.

Visit www.in.gov/dhs/2401.htm to view all forms and applications regarding public assistance.

Small Business Administration

SBA loan application process

- Complete the application for a SBA loan in person, over the phone or online:
- Visit your local Disaster Loan Outreach Center. For locations and hours see, http://www.in.gov/portal/news_events/68568.htm
- Call the SBA's Customer Service Center at 800-659-2955 (800-877-8339 for people with speech or hearing disabilities), Monday through Friday from 8 a.m. to 6 p.m. ET.

Visit SBA's secure website at <https://disasterloan.sba.gov/ela/>.

- Once an application has been completed and returned to SBA, a loan officer will be assigned to contact you to explain the application process, what documentation you need to provide and schedule a damage inspection.

Recovery

- An SBA inspector will visit your home to confirm damage reported in your application.
- Waiting period. The estimated waiting period to hear back from SBA is approximately 5-10 business days for homeowners and renters and 2-3 weeks for businesses of all sizes and non-profit organizations. To expedite the processing of your loan application, make sure you have submitted all required documentation including deed or lease information, insurance information, financial information on any applicable mortgages, etc.
- SBA will either approve or deny the loan application. The applicant will be notified by mail.
- If approved, you may either choose to accept or decline the loan. If you accept the loan, your loan officer will be in contact with you to complete the financial transaction.
- If denied by SBA for a disaster loan, you will receive a letter explaining the reason for denial and what additional information, if any, is required to continue the loan process.
- Applicants denied for an SBA loan may be eligible to receive up to a \$5,000 grant through the Indiana State Disaster Relief Fund (SDRF). SBA provides IDHS a list of applicants who are denied an SBA loan. IDHS will contact these individuals to provide information about the SDRF grant application process. You must have applied for and been denied an SBA loan in order to be considered for an SDRF grant. Potentially eligible individuals will be contacted by IDHS and may not initiate the application process prior to that notification.

Disaster Loans for Hoosier Assistance

Disaster loan information can also be completed on SBA's secure website at <https://disasterloan.sba.gov/ela/>. Business loan applications can also be downloaded from the SBA website at www.sba.gov. Completed applications should be returned to a Disaster Loan Outreach Centers or mailed to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

Individuals and businesses can call the SBA's Customer Service Center at 800-659-2955 (800-877-8339 for people with speech or hearing disabilities), Monday through Friday from 8 a.m. to 6 p.m. ET or by sending an email to disastercustomerservice@sba.gov.

Loans are available for damaged real estate and personal property for individuals. Businesses can apply for machinery, equipment, inventory, other business assets and working capital loans. Loans up to \$200,000 are available to homeowners to repair or replace damaged or destroyed real estate. Homeowners and renters are eligible for loans up to \$40,000 to repair or replace damaged or destroyed

Recovery

personal property. Businesses and non-profit organizations of any size may borrow up to \$2 million to repair or replace damaged or destroyed real estate, machinery and equipment, inventory and other business assets.

The SBA may increase a loan up to 20% of the total amount of disaster damage to real estate and/or leasehold improvements, as verified by SBA, to make improvements that lessen the risk of property damage by future disasters of the same kind.

For small businesses, and most private non-profit organizations of all sizes, the SBA also offers Economic Injury Disaster Loans (EIDLs) to help meet working capital needs caused by the disaster. EIDL assistance is available regardless of whether the business suffered any physical property damage.

Interest rates are as low as 2.563% for homeowners and renters, 3% for non-profit organizations and 4% for businesses with terms up to 30 years. Loan amounts and terms are set by the SBA and are based on each applicant's financial condition.

The filing deadline to return applications for physical property damage is November 14, 2012. The deadline to return economic injury applications is June 12, 2012.

Public Information on Mental Health and Addiction Recovery and Preparedness

- No one who sees a disaster is untouched by it.
- Disaster stress and grief reactions are normal responses to an abnormal situation.
- Many emotional reactions of disaster survivors stem from new and/or existing problems of everyday living brought about or exacerbated by the disaster.
- Following a disaster, many individuals do not recognize the need for mental health assistance.
- Survivors may reject disaster assistance of all types.
- Disaster mental health assistance is often more practical than psychological in nature.
- Disaster mental health assistance is a practical intervention targeting acute stress reactions and immediate needs.
- Mental health workers need to set aside traditional methods, avoid the use of mental health labels, and use an active outreach approach to intervene successfully after a disaster.
- Survivors respond to active, genuine interest and concern.
- Interventions must be appropriate to the phase of the disaster.

Recovery

- Social support systems are crucial to recovery.
- Self-care for responders is essential.

Mission

Coordinate all mental health and addiction activities prior to, during, and after an emergency or disaster, including acts of terrorism and to ensure the continuity of operations of these mental health and addiction agencies. Indiana Division of Mental Health and Addiction's Office of Emergency Management and Preparedness will assist to minimize the adverse mental health effects of trauma for victims, survivors and responders of traumatic events, whether those events are natural or man-made.

The State of Indiana has very strong and integrated Disaster Mental Health Teams that are located throughout the state of Indiana. These teams have been trained, credentialed and are on standby to respond to any disasters in their community or statewide. By having these materials at the ready, we are able to reduce the stress and anxiety that many people have following a disaster in their community.

The Disaster Mental Health Teams are in unique positions to provide mental health services to a population that has been affected by a disaster. Often these types of situations exacerbate underlying mental health issues for some survivors. Often our crisis counselors are able to refer people who are exhibiting mental health issues to the appropriate mental health provider.

Responsibilities

- Ongoing assessment of the mental health and addiction services provider system's ability to respond to a major disaster.
- Educate county emergency management officials on the need to coordinate their local/county emergency plans to respond to the crisis counseling needs of victims of a disaster.
- Develop inter-agency coordination into the emergency disaster response in all phases of planning.
- Train substance abuse and mental health services providers with whom DMHA contracts in crisis counseling programs and techniques
- Create linkages with mental health and addiction services providers not under contract with DMHA

Recovery

- Identify and train a cadre of mental health responders and crisis counselors
- Supervise and provide incident command for the 10 District Disaster Mental Health Response Teams

Project Aftermath

- This Crisis Counseling Program has supported short term interventions with individuals and groups experiencing psychological aftereffect to large scale disasters. These interventions involve the counseling goals of assisting disaster survivors in understanding their current situation and reactions, mitigating additional stress, assisting survivors in reviewing their options, promoting the use or development of coping strategies, providing emotional support, and encouraging linkages with other individuals and agencies that may help survivors recover to their pre-disaster level of function. While always cognizant of those with special needs, the thrust of the Crisis Counseling Program since its inception has been to serve people responding normally to an abnormal experience.
- Upon receiving a Presidential disaster declaration, the Division of Mental Health and Addiction will conduct a needs assessment to determine the level of stress being experienced by disaster victims. The Division of Mental Health and Addiction will apply for a Crisis Counseling grant. Upon award of the grant, the Division of Mental Health and Addiction typically provides funds to local mental health providers to hire additional staff to provide outreach and education on typical stress reactions and methods of reducing stress.

Getting Rid of Mold

- Take things that were wet for 2 or more days outside. Things that stayed wet for 2 days have mold growing on them even if you can't see it.
- Take out stuff made of cloth, unless you can wash them in hot water. Also, take out stuff that can't be cleaned easily (like leather, paper, wood, and carpet)
- Use bleach to clean mold off hard things (like floors, stoves, sinks, certain toys, countertops, flatware, plates and tools).
- Never mix bleach with ammonia or other cleaners.
- Wear rubber boots, rubber gloves, goggles and N-95 mask.
- Open windows and doors to get fresh air when you use bleach.
- Mix no more than 1 cup of bleach in 1 gallon of water.

Recovery

- Wash the item with the bleach and water mixture.
- If the surface of the item is rough, scrub the surface with a stiff brush.
- Rinse the item with clean water.
- Dry the item or leave it out to dry.

Replacing Vital Documents

Birth and Death Certificates:

Certified copies of birth and death certificates are available from the Indiana State Department of Health (ISDH) by mail-in or credit card only or from the local health department in the county where the event occurred on a walk-in basis. All requests require proper identification and proof of relationship to the person whose record is being requested is required. Methods of payment and fees may vary.

Birth records in the ISDH Vital Records office begin with October 1907. Prior to October 1907, records of birth are filed only with the local health department in the county where the birth actually occurred.

Death records in the ISDH Vital Records office begin with 1900. Prior to 1900, records of death are filed only with the local health department in the county where the death actually occurred. For deaths occurring from 1900 to 1917, the city and/or county of death is required in order to locate the record.

Paper and Books:

- These can be rinsed and frozen (frost-free freezer or commercial meat locker) until you have time to work on them. A less effective alternative is to place paper in a sealed container with moth crystals.
- Dry papers quickly when you thaw or unseal them (a blow dryer) don't try to force paper products apart—just keep drying them.
- Photocopy valuable papers and records soon because substances in the floodwater may cause deterioration.
- If a computer disk or tape has valuable information, rinse it in clear water and put it in a plastic bag in the refrigerator. Later, you can take it to a professional drying center and have the data

Recovery

transferred to a good disk or tape. To find a Disaster Recovery Institute near you, call (314) 846-2007.

Social Security Card:

Gather documents proving your:

- Identity
- U.S. citizenship if you have not established your citizenship with us
- Immigration status if you are not a U.S. citizen

Complete an Application for a Social Security Card.

Take or mail your completed application and documents to your local Social Security office or your local Social Security Card Center.

All documents must be either originals or certified copies by the issuing agency. They do not accept photocopies or notarized copies of documents. Any documents mailed will be returned to you along with a receipt.

Cards will be mailed as soon as documents are verified. Cards should be received within 10 business days from the date on receipt. The Replacement card will have the same number as your previous card.

You may not need to get a replacement card. Knowing your Social Security number is what is important. You need a Social Security number to get a job, collect Social Security benefits and receive some government services but you do not often need to show your Social Security card.

Insurance:

Contact your insurance company. Notify your insurance company of your loss and get advice about making emergency repairs. If you are unable to live in your home, ask the insurance company if it will pay for living expenses, such as a motel and food.

- A list of insurance companies can be found at: www.disasterinformation.org, or www.iii.org.
- Flood insurance: If you don't know the insurer or administrator, call the National Flood Insurance Program at 1-800-427-4661.

Utility Issues

Utility Issues

Preparing for a Utility Outage

Be ready before an emergency:

- Locate the electric, gas and water shut-off valves.
- Keep necessary tools near gas and water shut-off valves.
- Teach family members how to turn off utilities.
- Learn how to safely and properly switch water lines and circuit breakers back on once utilities have been restored.

If you turn the gas off, a professional must turn it back on. Do NOT attempt to do this yourself.

Take protective actions:

- Keep a battery-powered radio and flashlight; have an extra supply of fresh batteries.
- Store essential supplies such as flashlights, batteries, a portable radio, water, non-perishable foods, blankets and a manual can-opener.
- Due to the extreme risk of fires do NOT use candles during a power outage.
- Do NOT use charcoal indoors. Without proper ventilation, fumes from burnt charcoal can create a deadly situation.
- Do NOT run a generator inside a home or garage.
- If you use a generator, connect the equipment you want to power directly to the outlets on the generator. Do NOT connect a generator to a home's electrical system
- Listen to NOAA Weather Radio, local radio and television for updated information.
- For power outages or downed wires, call your utility company.

Prepare for a power outage:

Refrigeration:

- If you have space in your refrigerator or freezer, consider filling plastic containers with water, leaving about an inch of space inside each one (Remember, water expands as it freezes, so it is important to leave room in the container for the water to expand.). Place the containers in the

Utility Issues

refrigerator and freezer. This chilled or frozen water will help keep food cold if the power goes out, by displacing air that can warm up quickly with water or ice that keeps cold for several hours without additional refrigeration.

- If you use medication that requires refrigeration, most can be kept in a closed refrigerator for several hours without a problem. If unsure, check with your physician or pharmacist.

Electronics:

- If you use a computer, keep files and operating systems backed up regularly. Consider buying extra batteries and a power converter if you use a laptop computer. A power converter allows most laptops (12 volts or less) to be operated from the cigarette lighter of a vehicle.
- Turn off all computers, monitors, printers, copiers, scanners and other devices when they are not being used. That way, if the power goes out, this equipment will have already been safely shut down.
- Get a high quality surge protector for all of your computer equipment. If you use the computer a lot, such as for a home business, consider purchasing and installing an Uninterruptable Power Supply (UPS). Consult with your local computer equipment dealer about available equipment and costs.
- If you have a telephone instrument or system at home or at work that requires electricity to work (such as a cordless phone or answering machine), plan for alternate communication, including having a standard telephone handset, cellular telephone, radio or pager.

Remote services:

Remember, too, that some voicemail systems and remote dial-up servers for computer networks may not operate when the power is out where these systems are located. So even if you have power, your access to remote technology may be interrupted if the power that serves those areas is disrupted. Check with remote service providers to see if they have backup power systems and how long those systems will operate.

Access and transportation:

- If you have an electric garage door opener, find out where the manual release lever is located and learn how to operate it. Sometimes garage doors can be heavy, so get help to lift it. If you

Utility Issues

regularly use the garage as the primary means of entering your home upon return from work, be sure to keep a key to your house with you, in case the garage door will not open.

- Keep your car fuel tank at least half full because gas stations rely on electricity to power their pumps.

Special preparation information for people with disabilities:

- If you use a battery-operated wheelchair, life-support system, or other power-dependent equipment, call your power company before a power outage. Many utility companies keep a list and map of the locations of power-dependent customers in case of an emergency. Ask them what alternatives are available in your area. Contact the customer service department of your local utility company to learn if this service is available in your community.
- If you use a motorized wheelchair or scooter, have an extra battery. A car battery also can be used with a wheelchair but will not last as long as a wheelchair's deep-cycle battery. If available, store a lightweight manual wheelchair for backup.
- If you are blind or have a visual disability, store a talking or Braille clock or large-print timepiece with extra batteries.
- If you are deaf or have hearing loss, consider getting a small, portable, battery-operated television set. Emergency broadcasts may give information in American Sign Language or open captioning.

Safety During a Power Outage

Food safety:

- Use food supplies wisely. Use refrigerated foods first, frozen second and non-perishable foods last.
- Remember that perishable items from the refrigerator can be kept cool for about four hours if the refrigerator is left closed.
- Melt ice cubes for additional drinking water.

Chemical safety:

- Look for combustible liquids like gasoline, lighter fluid and paint thinner that may have spilled.
- Thoroughly clean any spills and place containers in a well-ventilated area.

Utility Issues

- Keep combustible liquids away from heat sources.

Electrical safety:

- Turn off or disconnect all appliances when there is an outage. When the power is restored, turn them on one by one to prevent an overload.
- Shut off or disconnect all major equipment, as well as the heating or air conditioning./ system that might be in operation at the time of outage.
- Unplug sensitive electronic equipment. When power is restored, use surge protectors to protect computers, fax machines, answering machines, televisions, stereos and appliances.
- If your home has sustained flood or water damage, and you can safely get to the main breaker or fuse box, turn off the power.
- Assume all wires on the ground are electrically charged. This includes cable TV feeds.
- Be aware of and avoid downed utility lines. Report downed or damaged power lines to the utility company or emergency services.
- Remove standing water, wet carpets and furnishings. Air dry out your home with good ventilation before restoring power.
- Do not use extension cords between homes or across yards or streets. Such use could cause electrocution and fire.
- Have a licensed electrician check your home for damage.
- Call your local utility company to report the outage. Don't assume someone else will report it.
- Use your mobile phone to access the utility's website, as it may track outage information and provide restoration updates.
- Use your mobile phone to follow the utility on Twitter (if it has an account) for restoration updates.
- If you experience an emergency or have a life threatening condition, call 911.

Fire safety:

- Be careful when using candles. Keep the flame away from combustible objects and out of reach of children.

Utility Issues

- Smoke alarms may be dependent on your home's electrical service and could be inoperative during a power outage. Check to see if your smoke alarm uses a back-up battery and install a new battery at least once a year.
- If there is a fire hydrant near your home, keep it clear of debris for easy access by the fire department.

Gas safety:

- Smell and listen for leaky gas connections. If you believe there is a gas leak, immediately leave the house and leave the door(s) open. Do not turn switches on or off, leave them as they are.
- Never strike a match. Any size flame can spark an explosion.
- Before turning the gas back on, have the gas system checked by a professional.

Generator safety:

- Follow manufactures' instructions and guidelines when using generators.
- Use a generator or other fuel-powered machine outside the home. Carbon monoxide fumes are odorless and can quickly overwhelm you indoors.
- Use the appropriate size and type of power cords to carry the electric load. Overloaded cords can overheat and cause fires.
- Never run cords under rugs or carpets where heat might build up or damage to a cord may go unnoticed.
- Never connect generators to another power source such as power lines. The reverse flow of electricity or "back feed" can electrocute an unsuspecting utility worker.

*Be sure to pay special attention to any messages coming from local utility companies in the case of a power outage.

Beware of Carbon Monoxide Poisoning

Portable, electric generators are used by many families and businesses to combat power outages and have become an increasing cause of death, according to the National Fire Protection Association. Carbon monoxide poisoning from the use of fuel-burning appliances kills more than 200 people each year and sends about 10,000 to hospital emergency rooms for treatment. Others die from carbon monoxide produced while burning charcoal inside a home, garage, vehicle or tent, or from carbon

Utility Issues

monoxide produced by cars unintentionally left running in attached garages or gas-powered generators when the exhaust accumulates in living spaces.

The risk of carbon monoxide poisoning is particularly high during the cold weather season, and you should stay alert to the risk of poisoning when spending more time in vehicles, or using unfamiliar fuel-burning heaters, generators or appliances in and around your home. Opening doors and windows or operating fans will not guarantee your safety. By knowing and practicing the following guidelines, you will be able to decrease your and your neighbors' risk of poisoning.

General precautions to follow:

- Have your traditional heating system inspected annually.
- Never warm up a motor vehicle in a garage, even if the door is open. Also, have your vehicle checked for exhaust leaks.
- Be sure all fuel burning sources such as gas, wood stoves, fireplaces and portable heaters are working properly and their flues or chimneys have been inspected.
- Never burn charcoal inside.
- Never use a gas range or oven for home heating.
- If the structure you are in is air tight and lacks ventilation, crack a window for fresh air.
- Battery-operated Carbon Monoxide (CO) alarms or plug-in CO alarms with battery back-up should be installed in the home.
- If the CO alarm sounds and someone in the home is experiencing symptoms, immediately evacuate and call 9-1-1.

If the alarm goes off and no one has symptoms, air out the home, turn off fuel-burning appliances and reset the carbon monoxide alarm. If elevated levels remain, the alarm will sound again after approximately six minutes. If the alarm sounds again, call a qualified heating contractor for inspection. Don't use any fuel-burning appliances until they have been inspected.

Symptoms of carbon monoxide poisoning include:

- Flu like symptoms, with no fever
- Nausea, vomiting
- Dizziness

Utility Issues

- Irregular breathing
- Confusion
- Fainting
- Fatigue and weakness
- Drowsiness
- Headache
- Confusion
- Feeling better after leaving a particular structure, but feeling ill upon return.

Precautions when using a generator:

- Never use gasoline- or diesel-powered electric generators in an enclosed area.
- Always operate a generator outside, in a well ventilated location—away from all doors, windows and vent openings so that exhaust fumes cannot enter the home through windows or other building openings.
- Do NOT refuel a generator while it is running. The generator should be turned off and allowed to cool down before being refueled.
- Fuel for the generator should never be stored in the home. Gasoline and other flammable liquids should be stored outside of living areas in properly labeled safety containers, away from any fuel-burning appliances, such as a gas hot water heater.
- Appliances should be plugged directly into the generator or a heavy duty outdoor extension cord.
- The cord should be checked for cuts or tears and to ensure the plug has all three prongs, especially the grounding pin.
- Use the appropriate size and type of power cords to carry the electrical load. Overloaded cords can overheat and cause fires.
- Never run cords under rugs or carpets where heat might build up or damage to a cord may go unnoticed.
- Never connect generators to another power source such as power lines. The reverse flow of electricity or “back feed” can electrocute an unsuspecting utility worker.
- The house wiring should not be powered by plugging the generator into a wall outlet. If the generator must be connected to the house wiring to power appliances, a qualified electrician should install a properly rated transfer switch.

Utility Issues

- Remember that FEMA does NOT reimburse generator purchases, except in extremely rare circumstances or for documented medical or extraordinary needs.

For more information on carbon monoxide and the safe use of generators, read this Consumer Product Safety Commission publication at: www.cpsc.gov/CPSCPUB/PUBS/portgend.html.

Hoosiers Asked to Work Together to Cope with Heat

All Citizens Requested to Voluntarily Reduce Energy Consumption

The Indiana Department of Homeland Security (IDHS) is asking all Hoosiers to voluntarily reduce energy consumption as much as possible.

This is not a mandatory order, but by voluntarily reducing the amount of energy used, essential public services will have enough electricity to continue operations without heavy reliance on generators.

By reducing the amount of energy consumed, the likelihood of recurring blackouts from lack of available electricity will be reduced.

IDHS recommends the following energy conservation tips to reduce energy consumption:

Residential consumers

Home energy conservation can not only reduce demand, but it can also save as much as 40% a year on electric bill costs. Consumers are encouraged to:

- Turn down **thermostats** down to 67 degrees. Programmable thermostats are a big help to assist consumers to reduce energy consumption.
- Turn your **refrigerator** down. Refrigerators account for about 20% of household electricity use. Use a thermometer to set your refrigerator temperature as close to 37 degrees and your freezer as close to 3 degrees as possible. Make sure that its energy saver switch is turned on. Also, check the gaskets around your refrigerator/freezer doors to make sure they are clean and sealed tightly.
- Set your **clothes washer** to the warm or cold water setting, not hot.
- Turn down your **water heater** thermostat. Thermostats are often set to 140 degrees F when 120 is usually fine.
- Turn off or unplug all non-essential devices which use electricity (televisions, radios, computers, cell phone chargers, lights, etc.)
- Close off rooms that are not in use, shut off appliances and lights that are not being used are also easy ways to reduce consumption.
- Clean heating and air conditioning filters every other week.

Utility Issues

Commercial and industrial businesses

Commercial and industrial businesses can also take some energy conservation efforts by doing the following:

- Reduce office or building temperature at least 4 degrees from 8 a.m. to 5p.m.
- Consider reducing temperatures in municipal after 5 p.m. and on weekends.
- Turn off all non-essential lighting (i.e. lights on the statue, flag, clock, and some over-lit areas).
- Reduce temperatures on water heaters in municipal buildings to a minimum setting.
- Turn off copy machines/computers when not in use for an hour or more.
- Turn off office lighting when not in use.
- Notify the organization's facilities management department of areas that are over-lit so they can be turned off.
- Employees and visitors in commercial and industrial facilities are also encouraged to use the stairs instead of the elevator when possible/.

Earthquakes

Earthquakes

What to Know About Earthquakes

Educate yourself and family members:

- Teach children how and when to call 9-1-1, the police or fire department and which radio or television station to tune to for emergency information.
- Teach all family members how and when to turn off gas, electricity and water (Remember, you'll need a professional to turn natural gas services back on.).

Familiarize yourself with the following earthquake terms to help identify hazards:

- **Earthquake:** A sudden slipping or movement of a portion of the earth's crust, followed by a series of vibrations.
- **Aftershocks:** Earthquakes of similar or lesser intensity that frequently follow the main earthquake.
- **Epicenter:** The place on the earth's surface directly above the point on the fault where the earthquake ruptures begin. Once fault slippage begins, it expands along the fault during the earthquake and can extend hundreds of miles before stopping.
- **Fault:** The fracture across which displacement occurs during an earthquake. The slippage may range from less than an inch to more than 10 yards in a severe earthquake.
- **Magnitude:** The amount of energy released during an earthquake, which is computed from the amplitude of the seismic waves. A magnitude of 7.0 on the Richter Scale indicates an extremely strong earthquake. Each whole number on the scale represents an increase of about 30 times more energy released than the previous whole number represents. Therefore, an earthquake measuring 6.0 is about 30 times more powerful than one measuring 5.0.
- **Seismic waves:** Vibrations that travel outward from the earthquake fault at speeds of several miles per second. Although fault slippage directly under a structure can cause considerable damage, the vibrations of seismic waves cause most of the destruction during earthquakes.

Preparing Yourself and Your Family for an Earthquake

Develop and practice a home earthquake plan:

Earthquakes

- Identify safe places indoors and outdoors: Under sturdy furniture such as a heavy desk or table, against an inside wall, and away from where glass could shatter around windows, mirrors, pictures or where heavy bookcases or other heavy furniture could fall over.
- If outdoors, a safe place is away from buildings, trees, telephone and electrical lines, overpasses and elevated expressways.
- Practice DROP, COVER AND HOLD ON with your family at least twice a year. Drop under a sturdy desk or table, hold on and protect your eyes by pressing your face against your arm.
- Keep in mind any special needs of young children, the elderly and individuals with mobility impairments.
- Take first aid classes and keep your training current.
- Get training on how to use a fire extinguisher from your local fire department.
- Inform babysitters and caregivers of your home earthquake plan.

Develop an emergency communication plan:

- In case family members are separated from one another during an earthquake (a real possibility during the day when adults are at work and children are at school); develop a plan for reuniting after the disaster.
- Ask an out-of-state relative or friend to serve as the “family contact.” After a disaster, it is often easier to call long distance. Make sure everyone in the family knows the name, address and phone number of the contact person.

Preparing Your Home for an Earthquake

Check for hazards in the home:

- Fasten shelves securely to walls, and brace overhead light fixtures.
- Place large or heavy objects on lower shelves.
- Hang heavy items such as pictures and mirrors away from beds, couches or anywhere people sit.
- Secure a water heater by strapping it to the wall studs and bolting it to the floor.
- Store breakable items such as bottled foods, glass and china, in low, closed cabinets with latches.

Earthquakes

- Store weed killers, pesticides and flammable products securely on bottom shelves in closed cabinets with latches.
- Repair defective electrical wiring and leaky gas connections to avoid potential fire risks.
- Repair any deep cracks in ceilings or foundations. Get expert advice if there are signs of structural defects.
- Consult a professional to find out additional ways you can protect your home, such as bolting the house to its foundation and other structural mitigation techniques.
- Keep essential emergency gear, such as a flashlight and sturdy shoes, by your bedside.

Have disaster supplies on hand:

- Flashlight and extra batteries
- First aid kit and manual
- Essential medicines
- Emergency food and water
- Manual can opener
- Cash and credit cards
- Sturdy shoes
- Protective clothing, rainwear and bedding or sleeping bags
- Portable battery-operated radio and extra batteries
- Written instructions for how to turn off gas, electricity (remember you'll need a professional to turn natural gas services back on).

Preparing Your Community for an Earthquake

Help your community get ready for an earthquake

- Publish a special section in your local newspaper with emergency information on earthquakes.
- Localize the information by printing the phone numbers of local emergency services and hospitals.
- Conduct a week-long series on locating hazards in the home.
- Work with local emergency services to prepare special reports for people with mobility impairments or other special needs on what to do during an earthquake.
- Provide tips on conducting earthquake drills in the home.

Earthquakes

- Interview representatives of the gas, electric and water companies about shutting off utilities.
- Work together with your community and apply your knowledge to building codes, retrofitting programs, hazard huts and neighborhood and family emergency plans.
- Communicate with school officials to ensure children know what to do during an earthquake.

What to Do During an Earthquake

If indoors during an earthquake:

- Stay inside until shaking stops and it is safe to go outside. Most injuries occur when people inside buildings attempt to move to a different location inside the building or try to leave.
- DROP, COVER, AND HOLD ON. During an earthquake, the safest course of action is to drop to the ground; take cover by getting under a sturdy table or other piece of furniture; and hold on because both you and the furniture may move. Stay put until the shaking stops.
- If there isn't a table or desk near you, cover your face and head with your arms and crouch in an inside corner of the building.
- Stay away from glass, windows, outside doors and walls and anything that could fall, such as lighting fixtures or furniture.
- If you are in bed when an earthquake strikes and not under a heavy light fixture or picture that could fall, stay there, hold on and protect your head with a pillow. If you are under a light fixture or other object that could fall on you, move to the nearest safe place.
- Use a doorway for shelter only if it is in close proximity to you and only if you know it is a strongly supported, load-bearing doorway.
- Be aware that the electricity may go out or the sprinkler systems or fire alarms may turn on.
- Do not use the elevators.
- Be ready for aftershocks, which are usually smaller in size, and take the aforementioned precautions.

If outdoors during an earthquake:

- Stay there.
- Move away from buildings, streetlights and utility wires.
- Once in the open, stay there until the shaking stops. The greatest danger exists directly outside buildings, at exits and alongside exterior walls. Many of the 120 fatalities from the 1933 Long

Earthquakes

Beach earthquake occurred when people ran outside of buildings only to be killed by falling debris from collapsing walls.

- Ground movement during an earthquake is seldom the direct cause of death or injury. Most earthquake-related casualties result from collapsing walls, flying glass and falling objects.
- Be ready for aftershocks, which are usually smaller in size, and take the aforementioned precautions.

If in a moving vehicle during an earthquake:

- Drive slowly to a clear location. Avoid stopping near or under buildings, trees, overpasses, utility wires and anything else that could fall on you.
- Stop as quickly as safety permits.
- Stay in the vehicle.
- Proceed cautiously once the earthquake has stopped. Avoid roads, bridges or ramps that might have been damaged by the earthquake.

If you are trapped under debris:

- Do NOT light a match.
- Do NOT move about or kick up dust.
- Cover your mouth with a handkerchief or clothing.
- Tap on a pipe or wall so rescuers can locate you. Use a whistle if one is available.
- Shout only as a last resort. Shouting can cause you to inhale dangerous amounts of dust.

What to Do After an Earthquake

Following an earthquake, do not make the mistake of thinking the time for caution and alertness has passed. Some earthquakes are actually foreshocks and a larger earthquake may be coming. Aftershocks can occur a few minutes or even a few months after the initial quake. Stay safe by remembering that aftershocks may be imminent, and avoid taking unnecessary risks.

Earthquakes

Ground movement during an earthquake is seldom the direct cause of death or injury. Most injuries suffered during an earthquake occur from subsequent structural instability and falling debris, so once you are out in the open or in a safe place indoors, stay there.

Evaluate the scene:

- Remain calm and check yourself for injuries. Put on long pants, a long-sleeved shirt, sturdy shoes and work gloves to protect yourself from debris.
- Help injured or trapped persons. Remember to help your neighbors who may require special assistance such as infants, the elderly and people with disabilities.
- Give first aid when appropriate.
- Do not move seriously injured persons unless they are in immediate danger of further injury. Use the telephone to call for help only to report life-threatening emergencies.

Expect aftershocks:

- These secondary shockwaves are usually less violent than the main quake but can be strong enough to do additional damage to already-weakened structures. They can occur in the first hours, days, weeks or even months after the quake.
- Listen to a battery-operated radio or television for the latest emergency information.

Inspect your home:

- Stay away from damaged areas unless your assistance has been specifically requested by police, fire or relief organizations.
- Return to your home ONLY when authorities say it is safe.
- Open cabinets cautiously: Beware of objects that can fall off shelves.
- Clean up spilled medicines, bleaches, gasoline or other flammable liquids immediately: Leave the area if you smell gas or fumes from other chemicals.
- Inspect the entire length of chimneys for damage: Unnoticed damage could lead to a fire.

Inspect utilities:

Earthquakes

- Check for gas leaks: If you smell gas or hear blowing or hissing noises, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's home. If you turn off the gas for any reason, it must be turned back on by a professional.
- Look for electrical system damage: If you see sparks, broken or frayed wires or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call an electrician first for advice.
- Check for sewage and water line damage: If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap. You can obtain safe water by melting ice cubes frozen prior to the suspected water pipe damage.

Beware of Aftershocks

An earthquake of similar or lesser intensity that follows the main earthquake is an aftershock. These secondary shockwaves are usually less violent than the main quake but can be strong enough to do additional damage to already-weakened structures.

Following an earthquake, do not make the mistake of thinking the time for caution and alertness has passed. Aftershocks can occur a few minutes or even a few months after the initial quake. Stay safe by remembering that aftershocks may be imminent, and avoid taking unnecessary risks.

Stay away from damaged areas unless your assistance has been specifically requested by police, fire or relief organizations and return to your home only when authorities say it is safe.

Ground movement during an earthquake is seldom the direct cause of death or injury. Most injuries suffered during an earthquake occur from subsequent structural instability and falling debris, so once you are out in the open or in a safe place indoors, stay there.

Thunderstorms

Thunderstorms

Preparing for a Thunderstorm

Prevalent in Indiana during the summer months, thunderstorms may produce heavy rains, strong winds, hail, lightning and tornados. Even if they last only a few minutes, thunderstorms have the strength and power to cause a great amount of damage.

Some thunderstorms can be seen approaching, while others hit without warning. It is important to learn and be able to recognize danger signs, and to plan in advance what to do. Preparing before a thunderstorm occurs can mitigate the risk of injuries and property damage.

General information about thunderstorms:

- Warm, humid conditions are highly favorable for thunderstorm development.
- They typically produce heavy rain for a brief period, anywhere from 30 minutes to an hour.
- Thunderstorms may occur singly, in clusters or in lines. Some of the most severe occur when a single thunderstorm affects one location for an extended time.
- About 10% of thunderstorms are classified as severe—one that produces hail at least three-quarters of an inch in diameter, has winds of 58 miles per hour or higher or produces a tornado.

Know the difference between a WATCH and a WARNING:

- A severe thunderstorm WATCH means a severe thunderstorm is likely to develop.
- A severe thunderstorm WARNING means that a severe thunderstorm has been sighted or indicated by weather radar.

Prepare ahead of time:

- Keep trees trimmed to help them avoid falling onto your house, cars or other structures.
- Remove dead or rotting trees and branches that could fall and cause injury or damage.

If a thunderstorm is coming or likely to develop:

Thunderstorms

- Keep your eye on the sky and listen to weather reports on the radio or television for the latest weather forecasts and postpone or cancel outdoor activities.
- Secure outdoor objects, such as lawn furniture, that could blow away, cause property damage or injury and take lightweight objects inside.
- Find shelter in a building or vehicle. Keep vehicle windows closed and avoid convertibles.
- If hail or strong winds are reported, park your vehicle under a shelter to avoid damage from hail and blowing debris.
- Shutter windows and secure outside doors. If shutters are not available, close window blinds, shades or curtains. If glass breaks due to objects blown by the wind, the shades will prevent glass from shattering into your home.
- Avoid showering or bathing. Plumbing and bathroom fixtures can conduct electricity.
- Turn off and unplug all electrical equipment, including computers, telephones and televisions.
- Turn off the air conditioner. Power surges from lightning can overload the compressor resulting in a costly repair job.

What to Do During a Thunderstorm

Thunderstorms producing large hail, flash floods, heavy rains, lightning, strong winds and tornadoes are prevalent in Indiana. Remember that a severe thunderstorm WATCH means a severe thunderstorm (one that produces hail at least three-quarters of an inch in diameter, has winds of 58 miles per hour or higher or produces a tornado) is likely to develop. A severe thunderstorm WARNING means that a severe thunderstorm has been sighted or indicated by weather radar. Keep your eye on the sky and listen to NOAA Weather Radio, commercial radio or television for the latest weather forecasts.

If shelter is available:

- Take shelter in a building or vehicle.
- Shutter windows, close window blinds, shades or curtains and secure outside doors.
- Avoid showering or bathing, as plumbing and bathroom fixtures can conduct electricity.
- Use a corded telephone only for emergencies. Cordless and cell phones are safe to use.
- Unplug appliances and other electrical items such as computers and turn off air conditioners. Power surges from lightning can cause serious damage.

Thunderstorms

- Keep abreast of the latest weather forecasts and prepare for possible tornadoes.
- For power outages and downed wires, call your local utility company. To have debris removed, call your city or county government.

If in a vehicle:

- Avoid seeking shelter in convertibles and keep car windows closed.
- Although you may be injured if lightning strikes your car, as long as you are not touching any metal, you are much safer inside a vehicle than outside.
- Pull safely onto the shoulder of the road away from any trees that could fall on the vehicle.
- Stay inside the car and turn on the emergency flashers until the heavy rains subside.
- Do not attempt to drive over a flooded road, you could be trapped or stranded. The depth of the water is not always obvious, or the road could be washed away. If you can't see it, you can't be sure it's there.

If shelter is unavailable:

- If you are in a forest, seek shelter in a low area under a thick growth of small trees.
- If you are on open water or swimming, get to land and find shelter immediately.
- If you are walking with others in an open area, stay a minimum of 10 feet apart, keep low and walk quickly to find shelter.

If you are caught in an open area:

- Go to a low-lying, open place away from trees, poles or metal objects. Make sure the area you choose is not subject to flooding.
- Make yourself the smallest target possible. Squat low to the ground and place your hands on your knees with your head between them.
- Do NOT lie flat on the ground; this will make you a larger target.

Always avoid:

- Natural lightning rods such as a tall, isolated tree in an open area.

Thunderstorms

- Hilltops, open fields or the beach.
- Isolated sheds or other small structures in open areas.
- Anything metal: tractors, farm equipment, motorcycles, golf carts, golf clubs, bicycles, etc.

What to Know About Lightning

While your chances of being struck by lightning are estimated at only 1 in 600,000, you can reduce your risk even further by following appropriate safety precautions. Knowing what to do if you or someone else is injured by lightning will also increase your and your family's chances of surviving.

Every thunderstorm produces lightning. In the United States an average of 300 people are injured each year by lightning. Most lightning deaths and injuries occur when people are caught outdoors in the summer months during the afternoon and evening. Although most victims survive, people struck by lightning often report a variety of long-term, debilitating symptoms.

Things to keep in mind:

- Lightning is extremely unpredictable and CAN strike the same place more than once. This volatility increases the risk to individuals and property.
- Lightning often strikes just outside a band of heavy rain but may occur as far as 10 miles away from any rainfall.
- "Heat lightning" is actually lightning from a thunderstorm too far away for thunder to be heard. However, be aware that the storm may be moving in your direction.

Before lightning strikes:

- Keep an eye on the sky. Look for darkening skies, flashes of light or increased wind speeds.
- Listen for the sound of thunder. If you can hear thunder, you are close enough to the storm to be struck by lightning. Go to a safe shelter immediately.
- Listen to NOAA Weather Radio, commercial radio or television for the latest weather forecasts.

When seeking shelter remember:

Thunderstorms

- Get inside a home, building or hard top automobile (not a convertible). Although you may be injured if lightning strikes your car, you are much safer inside a vehicle than outside.
- Rubber-soled shoes and rubber tires provide NO protection from lightning. However, the steel frame of a hard-topped vehicle provides increased protection if you are not touching metal.
- Avoid showering or bathing. Plumbing and bathroom fixtures can conduct electricity.
- Unplug appliances and other electrical items such as computers and telephones and turn off air conditioners. Power surges from lightning can cause serious damage (Leaving electric lights on, however, does not increase the chances of your home being struck by lightning.).

If you are caught outside:

- Go to a low-lying, open place away from trees, poles or metal objects. Make sure the place you pick is not subject to flooding.
- Squat low to the ground on the balls of your feet. Place your hands over your ears and your head between your knees. Make yourself the smallest target possible and minimize your contact to it. DO NOT lie flat on the ground—this will make you a larger target. Remember, if you feel your hair stand on end, that is an indicator that lightning is about to strike.

Stay away from:

- Natural lightning rods such as a tall, isolated tree in an open area.
- Hilltops, open fields, the beach or a boat on the water.
- Isolated sheds or other small structures in open areas.
- Anything metal—tractors, farm equipment, motorcycles, golf carts, golf clubs, bicycles, etc.

If someone is struck by lightning:

- Have someone dial 9-1-1 or your local Emergency Medical Services number immediately.
- People struck by lightning carry NO electrical charge and can be safely attended to immediately.
- The injured person has received an electrical shock and may be burned, both where they were struck and where the electricity left their body. Check for burns in both places. Being struck by lightning can also cause nervous system damage, broken bones and loss of hearing or eyesight.

Thunderstorms

- Give first aid. If breathing has stopped, begin rescue breathing. If the heart has stopped beating, a trained person should give CPR. If the person has a pulse and is breathing, look and care for other possible injuries.
- Stay with the victim until medical professionals arrive.

Stormwater and Construction

Stormwater discharges are generated by runoff from land and impervious areas such as paved streets, parking lots and building rooftops during rainfall and snow events. Stormwater can impact active construction sites as well as post-construction land use and water quality. As stormwater flows over a construction site, sediment and other pollutants can be washed onto nearby properties and into surrounding bodies of water. Post-construction land use can also generate pollutants as stormwater runoff discharges off the property. Polluted stormwater runoff can then adversely affect the physical and biological integrity of Indiana's surface waters.

Responsibilities to remember:

- The Indiana Department of Environmental Management (IDEM) is responsible for protecting human health and the environment while providing for safe industrial, agriculture, commercial and governmental operations.
- General Permits must be obtained prior to all land disturbing activities of one acre or more. The General Permit requires the development and implementation of a Construction Plan/Stormwater Pollution Plan for each project.
- Project site owners are also required to file a Notice of Intent with IDEM.
- Citizens are also encouraged to contact IDEM's Office of Water Quality with any questions or concerns about stormwater runoff and its effects on water quality.

For more information about:

- Stormwater quality; visit IDEM's stormwater website at <http://www.in.gov/idem/4896.htm>.
- Relevant Indiana law, see <http://www.in.gov/idem/4902.htm>.

Thunderstorms

Stormwater and Manufacturing

When it rains or snows, the water that runs off city streets, parking lots, construction sites and other impervious surfaces can wash sediment, oil, grease, toxics, pathogens and other pollutants into nearby storm drains or ditches. Once this pollution has entered the sewer system, it is usually discharged untreated into local streams and waterways creating stormwater runoff pollution. New regulations, known as Stormwater Phase II, have now been established in Indiana to reduce the impacts of stormwater from construction, industrial, municipal, governmental and institutional sources.

Regulation:

- IDEM regulates this industrial stormwater discharge as part of the National Pollutant Discharge Elimination System (NPDES) Permitting Program.
- Under Phase I, requirements applied to specific categorical industrial facilities which had a point source discharge of stormwater exposed to industrial activity from their facility.
- Phase II: The rule was expanded to allow conditional “no exposure certification” exclusions to any designated industry. This exclusion provides both an incentive for facilities to protect their operations from stormwater exposure and water quality benefit for the state by reducing polluted runoff.
- If it is determined that industrial stormwater discharges are mixing with other waste streams, then the facility does not qualify for a general stormwater permit and must apply for an individual storm permit with more specific guidelines for protecting water quality.

Responsibilities to remember:

- IDEM is responsible for protecting human health and the environment while providing for safe industrial, agriculture, commercial and governmental operations vital to a prosperous economy.
- Citizens are also encouraged to contact IDEM’s Office of Water Quality with any questions or concerns about stormwater runoff and its effects on water quality.

For more information about:

Thunderstorms

- Stormwater and Phase II regulations visit IDEM's stormwater website at <http://www.in.gov/idem/4896.htm>.
- Relevant Indiana laws see <http://www.in.gov/idem/4901.htm>.

Tornadoes

Tornadoes

Preparing for a Tornado

Tornado terms:

- A tornado WATCH means conditions are favorable for the production of tornadoes. You should remain alert for approaching storms. Watch the sky and stay tuned to NOAA Weather Radio, commercial radio, or television for updated information.
- A tornado WARNING means a tornado has been sighted or indicated by weather radar. You must take shelter immediately.
- Tornado predictability: Severe weather occurs in Indiana most often from April to July, and tornadoes are most likely to occur between 3 and 9 p.m., but either can occur at any time of the day or year.
- Tornadoes may strike quickly, with little or no warning. Occasionally, tornadoes develop so rapidly that little, if any, advance warning is possible.
- Before a tornado hits, the wind may die down and the air may become very still. Tornadoes generally occur near the trailing edge of a thunderstorm. It is not uncommon to see clear, sunlit skies behind a tornado.

Tornado visibility:

- Some tornadoes are clearly visible, while rain or nearby low-hanging clouds obscure others.
- Tornadoes may appear nearly transparent until dust and debris are picked up or a cloud forms in the funnel.
- A cloud of debris can mark the location of a tornado even if a funnel is not visible.
- A tornado appears as a rotating, funnel-shaped cloud that extends from a thunderstorm to the ground. Its whirling winds can reach 300 miles per hour.

Tornado trajectory:

- The average tornado moves southwest to northeast, but tornadoes have been known to move in all directions.

Tornadoes

- The average speed of a tornado is 30 MPH, but may vary from stationary to 70 MPH.
- Damage paths can be in excess of one mile wide and 50 miles long.

What to Do During a Tornado

If a tornado WATCH is issued:

- Listen to NOAA Weather Radio, commercial radio, or television newscasts for weather updates.
- Look for approaching storms and the following danger signs:
 - Dark, often greenish sky
 - Large hail
 - Large, dark, low-lying or funnel-shaped cloud extending from the sky. Pay particular attention if the cloud appears to be rotating.
 - Loud roar, similar to a freight train
- If you see approaching storms or any of the danger signs, be prepared to take shelter immediately.
- If a tornado WARNING is issued, you must seek shelter immediately. You may have only a few minutes or seconds before it reaches you.

If you are in a structure (e.g. residence, small building, school, nursing home, hospital, factory, shopping center or high-rise building):

- Go to a pre-designated shelter area such as a safe room, basement or storm cellar.
- Pick a place where family members can gather together and keep this place uncluttered.
- If an underground shelter is not available, go into an interior room or hallway on the lowest floor, putting as many walls as possible between you and the outside.
- If you are in a high-rise you may not have time to get to the building's lowest floor. Pick a hallway in the center of the building.
- Stay in the center of the room, away from corners because they collect debris.
- Stay away from exterior walls, windows and doors.
- Get under a piece of sturdy furniture such as a workbench, heavy table or desk and hold onto it.

Tornadoes

- Use blankets, pillows or your arms to protect your head and neck.
- Do NOT open windows.

If you are in a vehicle, trailer or mobile home:

- GET OUT immediately. Even if tied down, mobile homes offer little or no protection from tornadoes.
- Go to the lowest floor of a sturdy building or a storm shelter nearby.
- NEVER try to out drive a tornado in a vehicle. Tornadoes can change direction quickly and can lift up a car or truck and toss it through the air.
- Even if there is no time to get indoors, GET OUT of the vehicle or mobile home.

If you are outside with no shelter:

- Lie flat in a nearby ditch or depression (beware of the potential for flooding) or crouch near a strong building.
- Cover your head with your hands.
- Do NOT get under an overpass or bridge. Wind speeds actually increase under them and can suck you out. You are safer in a low, flat location.
- Beware of flying debris which is the cause of most fatalities and injuries.

What to Do After a Tornado

After the tornado passes:

- Stay out of damaged buildings.
- Help injured or trapped people if you can do so without endangering yourself.
- Check on others who may require special assistance, such as the elderly, children and people with disabilities.
- Inspect your home for damage.
- Do not use candles for emergency lightning or heating.
- Watch out for fallen power lines.

Tornadoes

- For power outages and downed wires, call your local utility company. To have debris removed, call your city or county government.
- Local authorities may not immediately be able to provide information on what is happening and what you should do. However, you should listen to NOAA Weather Radio, watch TV, listen to the radio or check the Internet often for official news and instructions as they become available.

Floods

Floods

What to Know About Floods

Being educated about the nature of floods and the actions to take if one occurs is the best way to prepare. The more you know about floods, the better equipped you will be to make important safety decisions for you and your family. You should be aware of flood hazards no matter where you live, but especially if you live in a low-lying area, near water or downstream from a dam. Even very small streams, gullies, creeks, culverts, dry streambeds or low-lying ground that appears harmless in dry weather can flood.

Floods are one of the most common hazards in the United States. Flood effects can be local, impacting only one neighborhood or community, or very large, affecting entire river basins and multiple states. However, not all floods are alike.

- Some develop slowly, sometimes over a period of days.
- Flash floods can develop quickly, sometimes in just a few minutes and without any visible signs of rain. Flash floods often have a dangerous wall of roaring water carrying rocks, mud and other debris that can sweep away most things in its path.
- When a levee is breached or a dam fails, the overland flooding can produce effects similar to those caused by a flash flood.

Know the following terms and actions to take:

Flood watch:

- Flooding is possible. Tune to NOAA Weather Radio, commercial radio or television for information.
- Move your furniture and valuables to higher floors of your home.
- Fill your car's gas tank in case an evacuation notice is issued.

Flood warning:

Floods

- Flooding is occurring or will occur soon. If advised to evacuate, do so immediately.
- Listen to local radio and TV stations for information and advice.

Flash flood watch:

- Flash flooding is possible. Be prepared to move to higher ground. Listen to NOAA Weather Radio, commercial radio or television for information.
- Be alert to signs of flash flooding and be ready to evacuate on a moment's notice.

Flash flood farming:

- A flash flood is occurring.
- Evacuate immediately. You may have only seconds to escape, so act quickly.
- Move to higher ground away from rivers, streams, creeks and storm drains.
- Do not drive around barricades; they are there for your safety.
- If your car stalls in rapidly rising waters abandon it immediately and climb to higher ground on foot.

Preparing For a Flood

Long-term home preparation:

- Know your area's flood risk and your elevation above flood level. If unsure, call your local Red Cross chapter, emergency management office or planning and zoning department.
- Contact community officials to find out if they are planning to construct barriers (levees, beams, floodwalls) to stop floodwater from entering the homes in your area.
- Avoid building in a flood-prone area unless you elevate and reinforce your home.
- Elevate the furnace, water heater and electric panel if they are in areas of your home that may be flooded. Consult with a professional for further information if this and other damage reduction measures can be taken.
- Seal the walls in your basement with waterproofing compounds to avoid seepage.
- Buy and install sump pumps with back-up power.
- Buy a fire extinguisher and make sure your family knows where it is and how to use it.

Floods

- Have a licensed electrician raise electric components (switches, sockets, circuit breakers and wiring) at least 12" above your home's projected flood elevation.
- For drains, toilets and other sewer connections, install backflow valves or plugs to prevent floodwaters from entering.
- Identify potential home hazards and know how to secure or protect them before the flood strikes.
- Be prepared to turn off electrical power, gas and water supplies when there is standing water, fallen power lines or before you evacuate.
- Anchor fuel tanks to prevent them from being torn free and contaminating your basement. An unanchored tank outside can be swept downstream and damage other houses.
- Consider purchasing federally backed flood insurance through the National Flood Insurance Program or other insurance providers.

Long-term personal preparation:

- Learn about your community's emergency plans, warning signals, evacuation routes and locations of emergency shelters.
- Inform local authorities about any special needs of elderly, bedridden or disabled people.
- Assemble and maintain a disaster kit with essential documents, medications and food and water supplies in case you must evacuate.
- Have your immunization records handy or be aware of your last tetanus shot, in case you should receive a puncture wound or have a wound become contaminated during or after the flood.
- Keep insurance policies, important documents and other valuables in a safe-deposit box.
- Determine safe routes from home, work and school that are on higher ground.
- Keep your automobile gas tank filled; if electric power is cut off, fueling stations may not be able to operate pumps for several days.
- Plan and practice a flood evacuation routine with your family. Ask an out-of-state relative or friend to be the "family contact" in case your family is separated during a flood. Make sure everyone in your family knows the name, address and phone number of this contact person.
- Post emergency phone numbers at every phone.

Floods

Short-term preparation:

- If it has been raining hard for several hours, or steadily raining for several days, be alert to the possibility of a flood. You may want to create a barrier between your house and rising water. To locate sandbag pick-up locations, call your local emergency management agency. It will be listed under city or county offices.
- If there is any possibility of a flash flood, you may not want to wait for instructions to seek higher ground. Once a flash flood warning is issued, you may have only seconds to escape.
- Listen to NOAA Weather Radio, local radio or TV stations for flood information and know the difference between a flood watch, a flood warning, a flash flood watch and a flash flood warning.
- Keep a portable radio, flashlight, extra batteries and light bulbs and other essential supplies on hand.
- Store drinking water in various containers and clean bathtubs in case water services are disrupted.
- Be aware of streams, drainage channels, canyons and other low-lying areas known to flood suddenly. Flash floods can occur in these areas with or without such typical warnings as rain clouds or heavy rain.
- Be prepared to evacuate and take your emergency kit with you.

Evacuating During a Flood

During a flood emergency the safest course of action may be to evacuate your home, work place, school or other location. Any emergency evacuation can be a stressful experience, but knowing what to do, where to go and how to get there safely will help you stay calm and get you and your family to refuge.

Flash flooding can happen at a moment's notice giving you only seconds to escape, so if you are advised to evacuate, you should do so immediately. Even if floodwaters have been rising over a longer period of time, once they reach a critical level, authorities will advise you to evacuate and you must act quickly.

Plan ahead:

Floods

- Know your area's flood risk and your elevation above flood level. If unsure, call your local Red Cross chapter, emergency management office or planning and zoning department.
- Determine safe routes from home, work and school that are on higher ground.
- Fill your vehicle's gas tank and make sure the emergency kit for your car is ready.
- If no vehicle is available, make arrangements with friends or family for transportation.
- Identify essential documents such as medical records, insurance cards, ID cards and put them in water proof material to carry with you during evacuation.
- Fill your clean water containers.
- Adjust the thermostat on refrigerators and freezers to the coldest possible temperature.
- Listen to NOAA Weather Radio, local radio or TV stations for evacuation orders.
- Listen for disaster sirens and warning signals.
- If there is any possibility of a flash flood, you may not want to wait for instructions to seek higher ground. Once a flash flood warning is issued, you may have only seconds to escape.

Get out:

- You should NEVER ignore an evacuation order. Authorities will direct you to leave if you are in a low-lying area, or within the greatest potential path of the rising waters.
- If you are advised to evacuate you should take IMMEDIATE action. Just a few seconds can mean the difference between escaping the floodwaters and being trapped.
- Grab your emergency kit on your way out the door and make sure no one is left in the building.
- Secure your home ONLY if you are absolutely sure you have time to do so. You may also want to bring in outdoor furniture and move essential or valuable items to an upper floor.
- If you have time and if you are instructed to do so, turn off utilities at the main switches or valves. Disconnect electrical appliances, but do NOT touch electrical equipment if you are wet or standing in water.
- NEVER refuse to evacuate for the sake of a pet or other animal. Only if you are confident you have time should you worry about taking pets with you. Remember though, many shelters usually do NOT allow pets inside due to sanitary concerns.

Traveling in a vehicle:

Floods

- Do NOT drive in flooded areas. If floodwaters rise around your car, abandon the car immediately and move to higher ground on foot. Act quickly, or you and the vehicle may be swept away.
- Remember, six inches of water will reach the bottom of most passenger cars causing loss of control and possible stalling.
- A foot (12 inches) of water will float many vehicles, and just two feet of rushing water can carry away most vehicles INCLUDING sport utility vehicles (SUVs) and pickups.
- NEVER drive through flooded roadways. Roadbeds may be washed out under floodwaters.
- Be especially cautious at night when it is harder to recognize high water danger.
- Road closure information is available from the Indiana State Police at <https://www.IN.gov/isp>. Click on “road and weather” and then click on “road conditions.” Road closings should be updated every four hours.

Traveling on foot:

- Do NOT walk through moving water. Six inches of moving water can knock you off your feet and swift currents can drag you under the surface.
- If you must walk through water, walk where the water is NOT moving. Use a stick, broom handle or other long object to check the firmness of the ground in front of you.
- If the weather is colder, remember the risk of hypothermia associated with being wet and cold.
- Avoid floodwaters that may be contaminated by oil, gasoline or raw sewage. Water may also be electrically charged from underground or downed power lines.
- Exercise extreme care when walking through water with children. Whenever possible, always have children wear a U.S. Coast Guard-approved life jacket to prevent drowning.
- If you find yourself stranded in floodwaters, remain calm and call 9-1-1 or yell for help. A panicking person is more likely to make wrong decisions. Only swim if you absolutely have to and do not swim against the current. If you are a rescuer, remember to throw a rope or flotation device to the person or row a boat out to them, but never go into the water yourself. A panicked swimmer may drag you under with them.

Shelter:

Floods

- Seek high ground.
- Listen to your portable radio or other source to find out what action to take next.
- Stay out of any buildings surrounded by floodwaters.
- Keep away from buildings if their structural integrity has been compromised by water damage.
- Return home only when authorities indicate it is safe.
- All evacuees and those who evacuate are urged by the Red Cross to register on the “Safe and Well” at <https://disastersafe.redcross.org/>. This tool allows people in disaster-affected areas to register their well-being using several pre-scripted messages. Family and friends can then log on and search for registered individuals to learn of their whereabouts and safety. People without access to a computer or without electricity can call the Red Cross (1-800-RED-CROSS) for help registering, or contact a loved one to register on their behalf.

Never Drive Through Flood Waters

Before you go:

- Do not travel unless absolutely necessary. If you must travel, carry a cell phone with a car charger.
- Pay attention to your local media and heed all flood and flash flood warnings issued by the National Weather Service.
- Visit the Indiana State Police at <https://www.IN.gov/isp> and click on Road and Weather, and then click on Road Conditions. The road closings should be updated every four hours.

On the road:

- Be especially vigilant at night; many drownings and near deaths occur at night when it is difficult to see water crossings.
- Do not drive around barricades at water crossings. They are there for your protection.
- Do not cross or enter flowing water. Turn around, don't drown. If there is no other route, proceed to higher ground and wait for the waters to subside.
- Be aware that road erosion may occur under running or standing water. If you can't see the road, you can't be sure it's there.

Floods

- Even if the water appears shallow enough to cross, do not attempt to cross a flooded road. Water can conceal dips, or worse, floodwaters can damage roadways, washing away the entire road surface and a significant amount of ground.
- Remember, six inches of water will reach the bottom of most passenger cars causing loss of control and possible stalling.
- A foot (12 inches) of water will float many vehicles, but even just a few inches of rushing water can carry away most vehicles INCLUDING sport utility vehicles (SUVs) and pickups.
- Slow down. Driving fast through high water creates less tire contact with the road surface and increases your chance of losing control of your vehicle.
- Driving through water may affect your brakes. Test your brakes at low speeds as soon as you exit the water.

Get out:

- If your car stalls, abandon it immediately and climb to higher ground.
- If you are forced to abandon your vehicle, respect the force of the water flow. After you exit the vehicle, seek higher ground or get on top of your car. Wait for help to arrive.
- If you find yourself stranded in floodwaters remain calm and call 9-1-1 or yell for help. A panicking person is more likely to make wrong decisions. If you can do so safely move to higher ground. Only swim if you absolutely have to and do not swim against the current. If you are a rescuer, remember to throw a rope or flotation device to the person or row a boat out to them, but never go into the water yourself. A panicked swimmer may drag you under with them.

What to do before a Dam Failure

A dam is a man-made barrier constructed for the purpose of storing or diverting water. It is usually built across a stream or river and usually consists of earthen materials or concrete. Many of the existing dams in Indiana are relatively old (30 years or more), making safety inspections and regular maintenance extremely important practices. Knowing your risk, the Emergency Action Plan (EAP) and when and how to evacuate as directed by emergency response officials are the most important steps you can take to stay safe if a dam fails.

Floods

Dams:

- The Department of Natural Resources (DNR) regulates dams that meet one of three criteria:
 - The drainage area above the dam is greater than 1 square mile
 - The dam embankment is greater than 20 feet
 - The dam impounds more than 100-acre feet of water
- A high hazard dam is one in which its failure may cause the loss of life and serious damage to homes, industrial and commercial buildings, public utilities, major highways or railroads.
- A significant hazard dam is one in which its failure may damage isolated homes and highways, or cause temporary interruption of public utility services.
- A low hazard dam is one in which its failure may result in damage to farm buildings, agricultural land or local roads.
- There are about 250 high hazard, 250 significant hazard, and about 600 low hazard dams in Indiana.

Dam laws:

- The Indiana General Assembly has established dam safety laws to protect the citizens of the state. Generally, the laws are intended to ensure dam owners maintain his/her dam in a safe manner that minimizes potential safety risks downstream. Since dam owners can be held accountable for any damage that results from the failure of their dams, they should do whatever is necessary to avoid injuring persons or property.
- DNR has the statutory authority to regulate dams in Indiana and oversee the inspections of about 1,100 dams statewide.
- State law requires a DNR inspection of low hazard dams once every five years, and once every three years for significant hazard dams. Owners of high hazard dams are required to have an inspection once every two years.

Dam inspections:

- A responsible dam safety program should include four types of inspection—formal technical inspections, maintenance inspections, informal inspections and special inspections.

Floods

- Formal technical inspections are the most comprehensive and usually include review and analysis of available data and plans, a field examination and a final report. The field inspection is performed by a team of one or more professional engineers, geologists or qualified technicians, accompanied by the dam owner or his/her representative.
- Depending on the type of dam, a field exam can take two to three days for a team of experts to complete and may cost the owner \$2,500 to \$4,000.
- An inspection is only a snapshot of the dam's relative safety status at the time. It provides the owner with information on necessary repairs but it is not a guarantee that the dam is safe. Year-round vigilance by the owner using informal inspection coupled with special inspections and proper maintenance practices are far better tools for ensuring the long-term integrity of a dam.
- Levees that are designed and built for flood control are also inspected. However, other agricultural structures only designed to divert water from crop fields, or to prevent topsoil erosion in the event of high water are not inspected.

Dam failures:

- Know your risk. To find out if you live downstream from a dam, whether it is a high or significant hazard structure and who owns and regulates it, contact your state or county emergency management agency, the National Inventory of Dams or the Association of State Dam Safety Officials.
- Know your EAP. Once you determine that you live downstream from a high or significant hazard dam, see if a current EAP is in place for the dam's failure. An EAP is a formal document that identifies potential emergency conditions at a dam and specifies preplanned actions to be followed to reduce property damage and loss of life.
- An EAP should also specify actions the dam owner should take to address problems at the dam as well as steps to assist the owner in issuing early warning and notification messages to responsible downstream emergency management authorities in the event of a potential or likely fail.
- Know when and how to evacuate. If there is a dam failure or an imminent dam failure and you need to evacuate, know your evacuation route and get out of harm's way.

Floods

- In general, evacuation planning and implementation are the responsibility of the state and local officials responsible for your safety. However, there may be situations where recreational facilities, campgrounds or residences are located below a dam and local authorities will not be able to issue a timely warning. In this case, the dam owner should coordinate with local emergency management officials to determine who will warn you and in what priority.

Staying Safe after the Rain Stops

It is important to remember that flood dangers do not end when the water begins to recede. Buildings may have hidden damage or damage to gas, electric or water lines. The residual effects of floods, such as contaminated water, crumbled roads, landslides, mudflows and other hazards, can also be extremely dangerous. You can continue to help keep you and your family safe in the days and weeks following a major flood emergency by following these guidelines.

What to do next:

- If injured, seek necessary medical care at the nearest hospital or clinic. Remember, contaminated floodwaters create a great risk of infection, so severe injuries will require medical attention.
- All evacuees are urged by the Red Cross to register on the “Safe and Well” at <https://disastersafe.redcross.org/>. This tool allows people in disaster-affected areas to register their well-being using several pre-scripted messages. Family and friends can then log on and search for registered individuals to learn of their whereabouts and safety. People without access to a computer or without electricity can call the Red Cross (1-800-RED-CROSS) for help registering, or searching for a loved one.
- Continue listening to a weather radio, local radio or television stations for information updates. Return home ONLY when authorities indicate it is safe to do so. Buildings may have hidden damage or damage to gas, electric or water lines.
- Avoid disaster areas. Your presence might hamper rescue and other emergency operations and put you at further risk from the residual effects of floods, such as contaminated water, crumbled roads, landslides, mudflows and other hazards.

Floods

- Report broken utility lines to the appropriate authorities. Reporting potential hazards will get the utilities turned off as quickly as possible, preventing further hazard and injury. Check with your utility company about where broken lines should be reported.
- Report oil spills, chemical spills and stray petroleum and home heating oil tanks to the Indiana Department of Environmental Management.

Health and wellness:

- Avoid floodwaters as they may be contaminated by oil, gasoline or raw sewage. Water may also be electrically charged from underground or downed power lines.
- Children should never play in floodwaters.
- Do NOT drink floodwater, which may be contaminated and avoid getting floodwater in eyes, nose and mouth. Individuals exposed to floodwater should wash their hands thoroughly with warm, soapy water. Follow directions from local officials regarding the safety of drinking water including well water.
- Once the floodwaters recede, the standing water remaining is ideal breeding grounds for mosquitoes that carry the West Nile virus and other diseases. Apply insect repellent containing DEET, Picardin, or oil of lemon eucalyptus to clothes and exposed skin to protect you and your family from mosquito bites.

Make sure your tetanus immunizations are up-to-date; any type of wound, major or minor, could be an entry source for the tetanus organism found in floodwater. Routine tetanus boosters are recommended every 10 years. For people who receive serious wounds, a tetanus booster is appropriate if they have not received one within the last 5 years. Tetanus vaccines are available from your primary health care provider or your local health department. A complete listing of local health departments is available on the State Department of Health Website at: <http://www.statehealth.IN.gov> by clicking on “Local Health Departments.”

Surviving a Landslide or Debris Flow

Landslides and debris flows occur in all U.S. states and territories. Being informed and taking appropriate protective measures will greatly mitigate the safety risks associated with these natural disasters. Landslides may be small or large, slow or rapid and are activated by storms, earthquakes,

Floods

volcanic eruptions, fires, alternate freezing or thawing and steepening of slopes by erosion or human modification. Debris flows, sometimes referred to as mudslides, mudflows or debris avalanches, are common types of fast-moving landslides. Discussing disaster plans ahead of time can help reduce fear by ensuring everyone knows how to respond during a landslide or debris flow.

Be informed:

- Learn whether landslides or debris flows have occurred in your area by contacting local officials, state geological surveys, departments of natural resources and university departments of geology. Landslides generally occur where they have before, and in identifiable hazard locations.
- Learn what to watch for prior to a major landslide. Look for patterns of stormwater drainage on slopes near your home, noting especially the places where runoff water converges, increasing the flow over soil-covered slopes. Check hillsides around your home for any signs of land movement, such as small landslides or debris flows or progressively tilting trees.
- Develop an evacuation plan. You should know where to go if you have to leave. Trying to make plans at the last minute can be upsetting and create confusion more greatly endangering yourself and your family.
- Talk to your insurance agent. Debris flows may be covered by flood insurance policies from the National Flood Insurance Program (NFIP).
- Discuss landslides and debris flows with your family. Everyone should know what to do in case all family members are not together.

Protect your home and property:

- If your property is in a landslide-prone area, consider contracting with a private consulting company specializing in earth movement and landslide problems for advice on corrective measures you can take.
- Get a ground assessment of your property, and do not build near steep slopes, close to mountain edges, near drainage ways or natural erosion valleys.
- Have flexible pipe fittings installed to avoid gas or water leaks, as flexible fittings are more resistant to breakage. ONLY the Gas Company or professionals should install gas fittings.

Floods

- Plant ground cover on slopes and rebuild retaining walls.
- In mudflow areas, build channels or deflection walls to direct the flow around buildings. Remember though, if you build walls to divert debris and the flow lands on a neighbor's property, you may be liable for damages.

Be alert during intense storms and rainfall:

- Many debris-flow fatalities occur when people are sleeping. Listen to NOAA Weather Radio, or portable, battery-powered radio or television for warnings of intense rainfall.
- Be aware that intense, short bursts of rain may be particularly dangerous, especially after longer periods of heavy rainfall and damp weather.
- Be aware of any sudden increase or decrease in water level on a stream or creek that might indicate an unfolding debris flow upstream. A trickle of flowing mud may precede a larger flow.
- Look for tilted trees, telephone poles, fences or walls, and for new holes or bare spots on hillsides.
- Listen for rumbling sounds that might indicate an approaching landslide or mudflow.
- Be especially alert when driving. Roads may become blocked or closed due to collapsed pavement or debris.

If you suspect an imminent landslide:

- If landslide or debris flow danger is imminent, evacuate! Quickly move away from the path of the slide. Getting out of the path of a debris flow is your best protection. Move to the nearest high ground in a direction away from the path.
- If rocks and debris are approaching, run for the nearest shelter and take cover (if possible, under a desk, table or other piece of sturdy furniture).
- Remember that driving during an intense storm can be hazardous. If you cannot safely evacuate, move to a second story if possible.
- If escape is not possible, curl into a tight ball and protect your head.
- Inform affected neighbors who may not be aware of potential hazards. Advising them of a potential threat may help save lives.

Floods

- Help neighbors who may need assistance evacuating.
- Contact your local fire, police or public works department as they are best able to assess potential and unfolding danger.

What to Know About Mudslides

Landslides and debris flows occur in all U.S. states and territories. Being educated about them and the actions to take if one occurs is the best way to prepare. The more you know about these natural disasters, the better equipped you will be to make important safety decisions for you and your family.

In a landslide or debris flow masses of rock, earth or debris move down a slope. Landslides may be small or large, slow or rapid and activated by storms, earthquakes, volcanic eruptions, fires, alternate freezing or thawing and steepening of slopes by erosion or human modification.

Landslides:

- Landslides are a serious geologic hazard common to almost every state in the United States.
- Some landslides move slowly and cause damage gradually, whereas others move so rapidly that they can destroy property and take lives suddenly and unexpectedly.
- Gravity is the force driving landslide movement. Factors that allow the force of gravity to overcome the resistance of earth material include: saturation by water, steepening of slopes by erosion or construction, alternate freezing or thawing, earthquake shaking and volcanic eruptions.
- Landslides are typically associated with periods of heavy rainfall or rapid snow melt and tend to worsen the effects of flooding that often accompany these events. In areas burned by forest and brush fires, a lower threshold of precipitation may initiate landslides.

Debris flows:

- Debris flows, sometimes referred to as mudslides, mudflows or debris avalanches, are common types of fast-moving landslides.

Floods

- These flows generally occur during periods of intense rainfall or rapid snow melt. They usually start on steep hillsides as shallow landslides that liquefy and accelerate to speeds that are typically about 10 miles per hour, but can exceed 35 miles per hour.
- The consistency of debris flows ranging from watery mud to thick, rocky mud that can carry large items such as boulders, trees and cars.
- Debris flows from many different sources can combine in channels, augmenting their destructive power. They continue flowing down hills and through channels, growing in volume with the addition of water, sand, mud, boulders, trees and other materials. When the flows reach flatter ground, the debris spreads over a broad area, sometimes accumulating in thick deposits that can wreak havoc in developed areas.
- Wildfires can also lead to destructive debris-flow activity. In July 1994, a severe wildfire swept Storm King Mountain, west of Glenwood Springs, Colorado, denuding the slopes of vegetation. Heavy rains on the mountain in September resulted in numerous debris flows, one of which blocked Interstate 70 and threatened to dam the Colorado River.

Health threats:

- In the United States, landslides and debris flows result in 25 to 50 deaths each year.
- Rapidly moving water and debris can lead to trauma.
- Broken electrical, water, gas and sewage lines that can result in injury or illness.
- Disrupted roadways and railways can endanger motorists and disrupt transportation and access to health care.

Areas more likely to experience landslides or mudflows include:

- Areas where wildfires or human modification of the land have destroyed vegetation;
- Areas where landslides have occurred before;
- Steep slopes and areas at the bottoms of slopes or canyons;
- Slopes that have been altered for construction of buildings and roads;
- Channels along a stream or river; and
- Areas where surface runoff is directed.

Floods

For more information:

- The Federal Emergency Management Agency (FEMA) has a fact sheet containing information on landslides and mudflows in the United States, as well as recommendations on how to prepare and behave during and after a landslide. <http://pubs.usgs.gov/fs/fs-0071-00/fs-0071-00.pdf>.
- The U.S. Geological Survey (USGS) has a fact sheet containing information on landslide hazards and characteristics. <http://pubs.usgs.gov/fs/fs-0071-00/fs-0071-00.pdf>.
- For information about reducing losses from landslides at the national, state and local levels, in both public and private sectors, review the following document: Spiker EC, Gori PL. National landslide hazards mitigation strategy -- a framework for loss reduction. U.S. Geological Survey Circular 1244 - Online Version 1.0, 2003. <http://pubs.usgs.gov/circ/c1244/>.

Building Safety

Remember that flood dangers do not end when the water begins to recede. Buildings may have hidden structural damage or damage to gas, electric or water lines. The residual effects of floods, such as contaminated water, crumbled roads, landslides, mudflows and other hazards can also be extremely dangerous. Your presence in disaster areas may hamper rescue and other emergency operations and put you at further risk. Therefore, although the desire to return home to evaluate damage and begin the recovery process is understandable, you should return home ONLY when authorities indicate it is safe.

- Return home ONLY when authorities indicate it is safe to do so.
- Stay out of any building if floodwaters remain around the building. Floodwaters often undermine foundations and cause sinking. Floors can crack or break and buildings can collapse.
- Report broken utility lines to appropriate authorities. Reporting potential hazards will get the utilities turned off as quickly as possible, preventing further hazard and injury. Check with your utility company about where broken lines should be reported.
- Once local officials indicate it is safe, use extreme caution when entering buildings. Damage may have occurred where you least expect it, so watch carefully every step you take.
- Wear sturdy shoes. The most common injury following a disaster is cut feet.

Floods

- Use battery-powered lanterns or flashlights when examining buildings. Battery-powered lighting is the safest and easiest and avoids fire hazards.
- Examine walls, floors, doors, staircases and windows to ensure the building is not in danger of collapsing.
- Inspect foundations for cracks and other damage. Cracks and damage to a foundation can render a building uninhabitable.
- Look for fire hazards such as broken or leaking gas lines, flooded electrical circuits, submerged furnaces or electrical appliances. Flammable or explosive materials may travel from upstream. Fires are the most frequent hazard following floods.
- Watch out for animals, especially snakes that may have been flushed from their homes and into buildings with the floodwaters. Use a stick to poke through debris.
- Watch for loose plaster, drywall and ceilings that could fall.
- Take pictures of the damage, both of the building and its contents, for insurance claims.

What to Do After a Landslide or Debris Flow

Sometimes the most stressful moments actually occur after a landslide is over. Great quantities of mud and debris can leave behind a very chaotic and overwhelming scene. It is important to remain calm and try to keep the recovery process in perspective. You won't be able to do everything you need to do to recover all at once, but you can take steps toward that end.

Although the desire to return home to evaluate damage and begin the recovery process is understandable, premature presence in disaster areas may hamper rescue and other emergency operations and put you at further risk. Therefore, you should return to your home, office or any building ONLY when authorities indicate it is safe to do so. Once local officials indicate it is safe, use extreme caution when entering buildings. Damage may have occurred where you least expect it, so watch carefully every step you take.

Immediate hazard mitigation:

- Stay away from the slide area. There may be danger of additional slides.
- Watch for flooding, which may occur after a landslide or debris flow, as they may both be started by the same event.

Floods

- Listen to local radio or television for updated emergency information.
- Without entering the direct slide area, check for injured and trapped persons near the slide, and assist them if you can do so without endangering yourself.
- Help neighbors who may require special assistance—infants, elderly people and people with disabilities. People who care for special needs individuals, or who have large families may also need additional assistance in emergency situations.

Protect yourself:

- Wear sturdy shoes. The most common injuries in a disaster are cuts to the feet.
- Avoid smoking inside buildings. Smoking in confined areas can cause fires.
- Use battery-powered lights when examining buildings to prevent potential shock and fire hazards.
- Watch out for animals that may have come into buildings with the floodwaters. Use a stick to poke through debris. Floodwaters flush many animals out of their homes.
- Keep children and pets away from hazardous sites and floodwater.

Evaluate the structure:

- Stay out of any building if floodwaters or mud remain around the building. Floodwaters often undermine foundations, causing sinking. Floors can crack or break and buildings can collapse.
- Inspect foundations for cracks or other damage which could render the building uninhabitable.
- Watch for loose plaster, drywall and ceilings that could fall.
- Take pictures of the damage, both of the building and its contents, for insurance claims.
- Pump out flooded basements gradually (about one-third of the water per day) to avoid structural damage. If the water is pumped completely in a short period of time, pressure from water-saturated soil on the outside could cause basement walls to collapse.

Evaluate utilities:

- If power lines are down outside your home, do not step in puddles or standing water.

Floods

- Do not connect the electricity back on in your home or business if you detect gas, or if the electrical system has been flooded or covered in slide debris.
- Look for electrical system damage. If you see sparks or broken or frayed wires or if you smell burning insulation, leave the house and call the fire department.
- Check for gas leaks. If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's home or cell phone. If you turn off the gas for any reason, it must be turned back on by a professional.
- Check for sewage and water line damage. If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company or call a plumber and avoid using water from the tap.
- Service damaged septic tanks, cesspools, pits and leaching systems as soon as possible. Damaged sewage systems are health hazards. Contact your local health department before making repairs to septic systems.
- Report broken utility lines to the appropriate authorities. Reporting potential hazards will get the utilities turned off as quickly as possible, preventing further hazard and injury. Check with your utility company about where broken lines should be reported.

Pre-empt disease:

- Clean and disinfect everything that was touched by floodwaters or mudflow.
- Confirm the water supply is safe to drink. Listen for news reports to learn whether the community's water supply has been contaminated.
- Contaminated water may not be safe to drink, clean with or bathe in. Use only bottled, boiled or treated water until your water supply is tested and found safe.
- If water is of questionable purity, boil or add bleach and distill drinking water before using. Wells inundated by floodwaters or mud should be pumped out and the water tested for purity before drinking. If in doubt, call your local public health authority. Ill health effects often occur when people drink water contaminated with bacteria and germs. See http://www.IN.gov/dhs/files/water_treatment.pdf for more information.

Floods

- Throw away food that has come in contact with floodwaters. Some canned foods may be salvageable. If the cans are dented or damaged, throw them away. Food contaminated by floodwaters can cause severe infection.

Rebuilding:

- Replant damaged ground as soon as possible since erosion caused by loss of ground cover can lead to flash flooding.
- Seek the advice of a geotechnical expert for evaluating landslide hazards or designing corrective techniques to reduce landslide risk.

First-Time Home

Sometimes the most stressful moments actually occur after a flood emergency is over. As one of nature's most powerful resources, large quantities of water can leave behind a very chaotic and overwhelming scene. It is important to remain calm and try to keep the recovery process in perspective. You will not be able to do everything you need to do to recover all at once, but you can take steps toward that end.

It is important to remember that flood dangers do not end when the water begins to recede. Buildings may have hidden structural damage or damaged gas, electric or water lines. Your presence in disaster areas may hamper rescue and other emergency operations and put you at further risk. Therefore, although the desire to return home to evaluate damage and begin the recovery process is understandable, you should return to your home, office, or any building **ONLY** when authorities indicate it is safe to do so.

Once local officials indicate it is safe, use extreme caution when entering buildings. Damage may have occurred where you least expect it, so watch carefully every step you take.

Protect yourself:

- Wear sturdy shoes. The most common injuries following a disaster are cuts to the feet.
- Avoid smoking inside buildings. Smoking in confined areas can cause fires.

Floods

- Use battery-powered lights when examining buildings. This prevents potential shocks and fire hazards.
- Watch out for animals that may have been flushed from their homes and come into buildings with the floodwaters. Use a stick to poke through debris. Keep children and pets away from hazardous sites and floodwater.

Evaluate the structure:

- Stay out of any building if floodwaters remain around the building. Floodwaters often undermine foundations, causing sinking. Floors can crack or break and buildings can collapse.
- Inspect foundations for cracks or other damage which could render the building uninhabitable.
- Watch for loose plaster, drywall and ceilings that could fall.
- Take pictures of the damage, both of the building and its contents, for insurance claims.
- Pump out flooded basements gradually (about one-third of the water per day) to avoid structural damage. If the water is pumped completely in a short period of time, pressure from water-saturated soil on the outside could cause basement walls to collapse.

Evaluate utilities:

- If power lines are down outside your home, do not step in puddles or standing water.
- Do not turn the electricity back on in your home or business if you detect a gas leak or if the electrical system has been flooded.
- Look for electrical system damage. If you see sparks, broken or frayed wires or if you smell burning insulation, leave the house and call the fire department.
- Check for gas leaks. If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's home or cell phone. If you turn off the gas for any reason, it must be turned back on by a professional.
- Check for sewage and water line damage. If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company or call a plumber and avoid using water from the tap.

Floods

- Service damaged septic tanks, cesspools, pits and leaching systems as soon as possible. Damaged sewage systems are health hazards. Contact your local health department before making repairs to septic systems.
- Report broken utility lines to the appropriate authorities. Reporting potential hazards will get the utilities turned off as quickly as possible, preventing further hazard and injury. Check with your utility company about where broken lines should be reported.

Pre-empt disease:

Clean and disinfect everything that was touched by floodwaters or mudflow and throw out food.

- Confirm the water supply is safe to drink. Listen to news reports to learn whether the community's water supply has been contaminated by the floodwaters.
- Contaminated water may not be safe to drink, clean with or bathe in. Use only bottled, boiled or treated water until your water supply is tested and found safe.
- If water is of questionable purity, boil or add bleach and distill drinking water before using. Wells inundated by floodwaters should be pumped out and the water tested for purity before drinking. If in doubt, call your local public health authority. Ill health effects often occur when people drink water contaminated with bacteria and germs. See http://www.IN.gov/dhs/files/water_treatment.pdf for more information.
- Throw away food that has come in contact with floodwaters. Some canned foods may be salvageable. If the cans are dented or damaged, throw them away. Food contaminated by floodwaters can cause severe infection. When in doubt, throw it out.

Cleaning Up

Remember that flood dangers do not end when the water begins to recede. Although the desire to return home to evaluate damage and begin the recovery process is understandable, you should return to your home, office, or any building ONLY when authorities indicate it is safe to do so.

The process of cleaning up your home, office or other building space after a flood can be a stressful experience, and the job can seem overwhelming. It is important to remain calm and try to keep the recovery process in perspective. You will not be able to do everything you need to do to recover all at once, but you can take steps toward that end. Try to focus on one task at a time and just do the next

Floods

thing. For more information and help, see the Red Cross guide *Repairing Your Flooded Home* at https://www.crossnet.org/services/disaster/0,1082,0_570_00.html.

General tips and techniques:

- Protect yourself during the cleaning process by wearing protective clothing such as boots, gloves and masks.
- Anyone who sustains an injury from materials affected by floodwaters should seek immediate medical attention.
- Dehumidify as soon as possible after a flood. Open windows and doors during the clean up process and leave them open for at least 24 hours.
- Clean and dry wet light fixtures before turning the electricity back on.
- For household cleaning after floodwater contamination, disinfect all surfaces with a bleach solution of ¼ cup chlorine bleach to one gallon of water.
- Items that cannot be salvaged after a flood must be thrown away including wet ceiling tiles, paper products, baseboards, gypsum board (aka, drywall) and insulation.
- Mattresses or other large items soaked with floodwater will probably have to be discarded. Some mattresses can be salvaged after disinfecting and air-drying.
- Materials such as cleaning products, paint, batteries, contaminated fuel and damaged fuel containers are hazardous. Check with local authorities for assistance with disposal.
- Service damaged septic tanks, cesspools, pit and leaching systems as soon as possible. Damaged sewage systems are a serious health hazard.
- Prevent mold growth by washing all surface areas in the house that came in contact with floodwater. Disinfect and wipe surfaces dry with paper towels to minimize bacterial contamination.
- Seal moldy trash in plastic bags and remove them immediately. Objects you can save should be dried or frozen as soon as possible. Freezing will stall mold growth, although it will not kill it.
- For more information, see <http://www.IN.gov/isdh/23581.htm>, <http://www.fema.gov/hazard/flood>.

Buildings subjected to floods:

Floods

- Buildings which have been flooded should be examined carefully before being used for living quarters to make sure they are safe and will not collapse. Loose plaster should be removed from the walls and ceilings so that it will not fall on occupants. Swollen doors and window sashes should be removed and allowed to thoroughly dry.
- If water remains in the basement, it should be drained or pumped out as soon as possible. As the water is being removed, the mud should be stirred and carried away with it. After the basement has been allowed to thoroughly dry, floors and walls should be washed down with a solution of one pound of chloride or lime to six gallons of water or with a solution prepared from a commercial laundry bleach containing chlorine. Laundry bleaches, having 5.25% sodium hypochlorite, are good for this purpose.
- For use in basements, as mentioned above, add one part of liquid chlorine laundry bleach to nine parts of water. Keep windows open for ventilation. Chlorine solutions are corrosive and should be mixed in plastic containers, enamel-lined metal pails or pans or stoneware crocks. Do not apply solution to metal surfaces. Follow precautions printed on the chlorine container.

Walls, woodwork and floors:

- Walls and woodwork, while still damp, should be thoroughly scrubbed with a stiff fiber brush and rinsed with water to remove all mud and silt. Particular attention should be given to all corners, cracks and crevices which should receive careful scrubbing.
- Floors should be cleaned of all mud and dirt and allowed to thoroughly dry. Artificial heat may be used with caution, however the temperature should not get high enough to cause steam (vapor) to rise from the floor and cause buckling or warping.
- Redecorating should not be attempted for some time as it is useless to try to paint damp surfaces. Three or four months' drying time may be necessary before redecorating can be done satisfactorily.

Furnaces:

- All parts of the heating system exposed to floodwater should be thoroughly cleaned and dried. The smoke pipe and chimney should be inspected and cleaned, if necessary, and furnace doors or covers left open to ventilate the system.

Floods

- Burners should be removed if possible; cleaned and allowed to dry to prevent rust and clogging of orifices.

Furniture and appliances:

- Furniture should be moved to the sunshine and fresh air. Drawer-slides and other working parts should be stacked separately and allowed to air dry. All mud and silt should then be removed. Care should be exercised to remove the furniture from the direct rays of the sun before it is subject to warping.
- Stoves and other metal fixtures should first have all mud and silt removed and wiped with an oiled rag, then polished or painted.

Rugs and carpets:

- Rugs and carpets should be stretched out on a flat surface and allowed to thoroughly dry with alternate turning to prevent mold; followed by beating, sweeping or vacuum cleaning.
- Rugs that require shampooing should be washed with commercial rug shampoo products or with a soap jelly, wiped off, rinsed with clean water and allowed to thoroughly dry.
- Soap jelly may be prepared by mixing one pint of mild soap powder or flakes with five parts of hot water and beaten with an eggbeater until a stiff lather is formed.
- Resizing may be done with a commercial or homemade material. Homemade sizing may be prepared by mixing one-half pound of granulated glue to one gallon of boiling water.
- Stretch the rug out flat where it will not be disturbed, apply with a wide brush and allow to thoroughly dry. When practical, upholstery may also be cleaned according to these procedures.

Clothing and bedding:

- Flood-soiled clothing and bedding require considerable care to obtain satisfactory results. All loose dirt should be brushed off, followed by thorough cleaning.

Important documents:

Floods

- If the item is wet it should be rinsed gently in clear water first. Paper is fragile when wet so it should be supported. Blotting or brushing debris off is the preferable method. Attempts at debris removal should be executed with great care. If the mud/dirt has dried on the item it is okay to gently brush it off, but be aware that staining may have already occurred.
- You can place books, most photographic negatives and documents into a regular freezer as an interim measure to avoid the onset of mold until they can be dried completely and properly.
- For additional assistance contact the Indian State Archives Conservation Lab.

Books:

- Books should be allowed to dry carefully and slowly with alternate exposure to air and pressing. Toward the end of this treatment, books may be subjected to small amounts of artificial heat.
- Place plain paper towels in between sections of 15 pages or fewer and change out with dry paper towels as they become saturated.
- Smaller books can be stood on end on a flat surface with the pages fanned open to air dry. Only use this method if the book is strong enough to stand open in this manner.
- Books and magazines with clay-coated (glossy) paper must be opened so that every page remains separated while drying to avoid the pages becoming stuck together.
- If your book or magazine has pages that have dried in a block, it is unlikely that they will be able to be separated.

Photographs:

- Photographs should be removed from frames if they have not become stuck to the glass. If it has become stuck, you may be able to scan it through the glass and reprint it successfully.
- Place wax paper in between each photograph as they are drying, or lay the photographs out individually. Be aware that photographs may curl if dried in this manner, but can be flattened later
- If your photographs or negatives have dried and adhered together, it is probable that the photographic emulsions have bonded to each other. However, a trained photographic conservator may be able to reverse this damage. Call the American Institute for Conservation.

Floods

Avoiding Indoor Air Quality Problems

During flood cleanup, the indoor air quality in your home or office may appear to be the least of your concerns. However, failure to remove contaminated materials and to reduce moisture and humidity can cause serious, long-term health risks. Standing water and wet materials are a breeding ground for microorganisms such as viruses, bacteria and mold. They can cause disease, trigger allergic reactions and continue to damage materials long after the flood. Read the following guidelines and visit:

https://www.crossnet.org/services/disaster/0,1082,0_570_00.html for additional information.

Dry out:

- Remove all standing water and dry out your home as soon as possible to pre-empt the spreading of diseases and allergic reactions.
- Standing water creates a wonderful habitat for microorganisms which can become airborne and be inhaled. Where floodwater contains sewage or decaying animal carcasses, infectious disease is of concern. Even when flooding is due to rainwater, the growth of microorganisms can cause allergic reactions in sensitive individuals.
- Be patient. The drying out process could take several weeks, and growth of microorganisms will continue as long as humidity is high.
- If the house is not dried out properly, a musty odor, signifying growth of microorganisms, can remain long after the flood.
- Materials that are wet and cannot be thoroughly cleaned and dried within 24-48 hours should be discarded, as they can remain a source of microbial growth.
- Remove and replace wallboard, fiberglass and wall-to-wall carpeting.
- Fiberboard, fibrous insulation and disposable filters should also be replaced, if they are present in your heating and air conditioning system and have contacted water.

Be cautious with cleaners:

- In most cases, common household cleaning products and disinfectants are used for the task of washing and disinfecting walls, floors, closets, shelves and the contents of the house.
- Disinfectants and sanitizers contain toxic substances the health effects of which greatly vary. Always read and follow label instructions carefully.

Floods

- Provide fresh air by opening windows and doors.
- If it is safe for you to use electricity and the home is dry, use fans both during and after the use of disinfecting, cleaning and sanitizing products.
- Be careful mixing household cleaners and disinfectants together and check labels for cautions. Mixing certain types of products can produce toxic fumes resulting in injury or even death.

Avoid carbon monoxide poisoning:

- Carbon monoxide (CO) is a colorless, odorless gas that can be lethal at high levels. CO levels can build up rapidly if certain types of combustion devices (for example, gasoline-powered generators, camp stoves and lanterns or charcoal-burning devices) are used indoors.
- Do not use combustion devices designed for outdoor use indoors.

Avoid airborne asbestos:

- Elevated concentrations of airborne asbestos can occur if asbestos-containing materials present in the home are disturbed. Airborne asbestos can cause lung cancer and mesothelioma, a cancer of the chest and abdominal linings.
- If you know or suspect that your home contains asbestos, contact the EPA TSCA Assistance Information Service at (202) 554-1404 for information on steps you should take to avoid exposure.

Avoid lead dust:

- Lead is a highly toxic metal which produces a range of adverse health effects, particularly in young children. Disturbance or removal of materials containing lead-based paint may result in elevated concentrations of lead dust in the air.
- If you know or suspect that your home contains lead-based paint, contact the National Lead Information Center to receive a general information packet, or ask questions.

Floods

Protecting Yourself from Mold

Disaster recovery and health officials warn that victims of flooding should clean flood-damaged homes thoroughly now to avoid possible health problems from mold and mildew in the months ahead. Care must be taken to clean and completely dry any area of the home wet from floodwaters to prevent structural damage and adverse health effects from mold and mildew. Dampness in walls, carpets, insulation and wood caused by flooding provides an environment for mold to flourish. These materials should be discarded if they become saturated.

Identifying mold:

- Mold is a microscopic organism found indoors and outdoors. When mold is present in large quantities it can cause allergic symptoms similar to those caused by plant pollen.
- Mold can often be seen and smelled. Sometimes it appears in the form of splotchy discoloration, ranging from white to orange or from green to brown or black. Its odor is earthy or musty.

Mold problems:

- When large amounts of mold are present, they can trigger allergic reactions, asthma episodes, infections and other respiratory problems.
- Exposure can cause development of an allergy to mold resulting in long-term health problems.
- Infants, children, elderly, immune-compromised individuals, pregnant women and individuals with respiratory conditions such as allergies, multiple chemical sensitivity and asthma are at higher risk for adverse health effects from mold.
- People who are sensitive to mold may experience stuffy nose, irritated eyes, wheezing or skin irritation.
- People allergic to mold may have difficulty breathing or shortness of breath.
- People with weakened immune systems and with chronic lung diseases, such as obstructive lung diseases, may develop mold infections in their lungs.
- If you or your family members have health problems after exposure to mold, contact your doctor or other health care provider.

Floods

- Mold can also cause structural damage. When wood goes through a period of wetting, then drying, it can eventually warp and cause walls to crack or become structurally weak.
- Mold can also ruin paper and fabric.

What to clean:

- As a general rule, if mold can be seen or smelled, steps should be taken to eliminate the excess moisture at its source and to clean up and remove the mold. Use caution because inhaling mold spores can cause illness.
- Remove or thoroughly clean all items that have been wet for more than 48 hours.
- Remove porous materials such as paper, rags, plaster, ceiling tiles, wallboard/drywall, carpeting and wood products. Harder materials such as glass, plastic and metal can be kept after they are cleaned and disinfected.
- If drywall is flooded, take it off the wall at least 12 inches above the highest water mark.
- If the mold is in high concentrations, disposal of carpeting should be considered because drying does not remove dead mold spores.

Cleaning mold:

- Spraying with bleach or other mold retardant or simply painting over the mold only masks the problem and does not stop mold growth.
- Use a breathing mask or respirator, wear rubber gloves and take breaks in a well-ventilated area while cleaning or removing moldy objects. Inhaling mold spores can cause illness.
- Clean mold with non-ammonia soap, detergent or a commercial cleaner mixed in hot water.
- Scrub the entire area affected by mold with a stiff brush or cleaning pad and then rinse with clean water.
- After thoroughly cleaning and rinsing, disinfect the area with a solution of no more than one cup of household bleach per gallon of water.
- Let the disinfected areas dry naturally overnight to kill all mold.
- NEVER mix bleach with ammonia because the fumes are toxic.

Floods

Salvaging Food

As a result of flooded conditions in homes, large quantities of foodstuffs may be submerged in floodwater or sewerage backflow. While efforts may be made to salvage some of these foods, many items cannot be safely consumed and should be destroyed. The following precautions are offered as a guide by the Indiana Department of Health in the salvaging of flood-contaminated foods and containers.

As a general rule, food should not be salvaged unless it is in a container that protects it and is one which can be thoroughly cleaned with soap and water and sterilized with boiling water or chlorine. Since paper, cardboard, wood and most plastic food containers are not waterproof; foods in such containers that have been under floodwater should be destroyed. These include water bottles, plastic utensils and baby bottle nipples.

Food in sealed metal cans: Remove labels. Thoroughly wash in soapy water by scrubbing with a brush. Immerse containers in a strong chlorine solution (100ppm chlorine) for 15 minutes. Make the solution by adding an ounce of chlorine-type laundry bleach to a gallon of clean water. Verify that all containers are thoroughly dry to prevent rusting.

Bottled foods (carbonated beverages, milk, ketchup, olives and similar foods): These foods will usually contain contaminated water if submerged. Even if contaminated water has not entered the containers, they cannot be safely cleaned because all filth cannot be removed from under the edge of the closure. Such foods should be destroyed.

Destroy. Do not salvage:

- Fresh fruits and vegetables.
- Cereals, flour, cornmeal, etc.
- Meats, poultry, fish. This does not apply to canned meats, fish and poultry which may be salvaged as any other "canned food."
- Lard, butter, oleo. Fats in undamaged hermetically sealed cans may be salvaged as outlined in "canned food" instructions above.

Floods

- Sugar, coffee, tea, eggs. If these foods are in hermetically sealed cans, they may be salvaged as outlined in "canned food" instructions.

Restoring Septic Systems

Once floodwaters have receded, the Indiana Department of Environmental Management urges homeowners to remember to check for sewage and water line damage the first time you return to a flooded home or other building. If you suspect that sewage lines are damaged, avoid using the toilets and call a plumber. Service damaged septic tanks, cesspools, pits and leaching systems as soon as possible. Damaged sewage systems are health hazards, so contact your local health department before making repairs to septic systems.

Please contact your local health department for additional advice and assistance. For more information on onsite/decentralized wastewater systems, call the National Environmental Services Center at (800) 624-8301 or visit their website at www.nesc.wvu.edu.

General precautions:

- Do not drink well water until it is tested. Contact your local health department.
- Do not use the sewage system until water in the soil absorption field is lower than the water level around the house.
- Have your septic tank professionally inspected and serviced if you suspect damage. Signs of damage include settling or an inability to accept water. Most septic tanks are not damaged by flooding since they are below ground and completely covered. However, septic tanks and pump chambers can fill with silt and debris and must be professionally cleaned. If the soil absorption field is clogged with silt, a new system may have to be installed.
- Only trained specialists should clean or repair septic tanks because tanks may contain dangerous gases. Contact your health department for a list of septic system contractors who work in your area.
- Prevent silt from entering septic systems that have pump chambers. When the pump chambers are flooded, silt has a tendency to settle in the chambers and will clog the drain field if it is not removed.

Floods

Do NOT:

- Do not use the system if the soil is saturated and flooded. The wastewater will not be treated and will become a source of pollution. Conserve water as much as possible while the system restores itself and the water table falls.
- Do NOT pump the tank during flooded or saturated drain field conditions. At best, pumping the tanks is only a temporary solution. Under worst conditions, pumping it out could cause the tank to try to float out of the ground and may damage the inlet and outlet pipes. Likewise, recently installed systems may “pop out” of the ground more readily than older systems because the soil has not had enough time to settle and compact.
- Remember, whenever the water table is high or your sewage system is threatened by flooding there is a risk that sewage will back up into your home. The only way to prevent this backup is to relieve pressure on the system by using it less.

If the septic system is flooded:

- Pump the septic system as soon as possible AFTER the flood. Be sure to pump both the tank and lift station. This will remove silt and debris that may have washed into the system.
- Flooding of the septic tank will have lifted the floating crust of fats and grease in the septic tank. Some of this scum may have floated and/or partially plugged the outlet tee. If the septic system backs up into the house check the tank first for outlet blockage. Clean up any floodwater in the house without dumping it into the sink or toilet and allow enough time for the water to recede. Floodwaters from the house that are passed through or pumped through the septic tank will cause higher flows through the system. This may cause solids to transfer from the septic tank to the drain field and will cause clogging.
- Aerobic plants, up flow filters, trickling filters and other media filters have a tendency to clog due to mud and sediment. These systems will need to be washed and raked.
- Do not dig into the tank or drain field area while the soil is still wet or flooded. Try to avoid any work on or around the disposal field with heavy machinery while the soil is still wet. These activities will ruin the soil conductivity.

Floods

- Do not compact the soil over the soil absorption field by driving or operating equipment in the area. Saturated soil is especially susceptible to compaction, which can reduce the soil absorption field's ability to treat wastewater and lead to system failure.
- Check the vegetation over your septic tank and soil absorption field. Repair erosion damage and sod or reseed areas as necessary to provide turf grass cover.
- If sewage has backed up into the basement, clean the area and disinfect the floor. Use a chlorine solution of a half cup of chlorine bleach to each gallon of water to disinfect the area thoroughly.
- Be sure the septic tanks manhole cover is secure and that inspection ports have not been blocked or damaged.
- Locate any electrical or mechanical devices the system may have that could be flooded and avoid contact with them until they are dry and clean.

In addition to raw sewage, small businesses may use their septic system to dispose of wastewater containing chemicals. If your chemical receiving septic system backs up into a basement or drain field take extra precautions to prevent skin, eye and inhalation contact. The proper cleanup depends on what chemicals are found in the wastewater. Contact your State or Environmental Protection Agency (EPA) for specific cleanup information.

Disinfecting Wells

The following instructions from the Indiana Department of Health are used for the disinfection or treatment of wells and private water sources that have been subjected to floodwater, or other possible sources of contamination. If the well casing is submerged in floodwater, **DO NOT USE THE WATER**. Water from submerged wells cannot be safely sanitized. When floodwaters recede, small quantities may be disinfected until the well can be properly chlorinated. Remember that no water should be used for drinking or food preparation, unless it is first boiled or treated until a satisfactory report is obtained from a laboratory. The safety of water cannot be judged by color, odor or taste. The organisms that cause water-borne disease cannot be seen. Individuals can have a private lab test their well water samples. The lab will analyze the sample and return the results to the collector, usually within 72 hours. The cost for this service will likely be between \$25 and \$30. See

Floods

<http://www.in.gov/isdh/22450.htm> for a list of Indiana-certified Microbiology Drinking Water Labs. Contact your local health department or sanitary engineering department for assistance or advice.

After floodwaters recede, or the cause of contamination is eliminated, wells can be disinfected with chlorine. A convenient form to use is sold commercially in grocery or other stores as liquid chlorine laundry bleach. Most of these products contain 5.25% solution or more of sodium hypochlorite when fresh, and is equivalent to 5% available chlorine.

The quantity of chlorine solution needed to disinfect a well is based upon 100 parts of chlorine to a million parts of water. To eliminate mathematical calculations, it is safe to use the following quantities and methods to disinfect the different types, sizes, and depths of wells and water sources:

Drilled or driven wells:

- Use one quart of the commercial 5% chlorine solution for each 100 feet of well depth in a drilled well which is four inches in diameter. For two-inch driven wells or smaller, add one cup for each 25 feet of water.
- The measured solution should be diluted with water to make about three gallons. Water drawn from the contaminated well is suitable for this purpose.
- Pour the diluted chlorine solution directly into the casing of a single tubular well, or into the annular space between the outer casing and the drop pipe of a double tubular well.
- If the well is sealed and the pump drop pipe is not equipped with a foot valve at the bottom and does not have a cylinder in the way, it is also possible to pour the solution down through the pump and drop pipe.

Dug wells:

- Dug wells which have become contaminated should first be pumped dry, cleaned and the walls scrubbed down. If it is not possible to pump the well dry, the pumping should be continued until the water becomes clear. The well should then be allowed to fill, and if the water is still not clear, it should be pumped out again.
- When the water is clear, the well should be disinfected using the following quantities of 5% chlorine solution for each foot of depth of water in the well:

Floods

<u>Diameter of well</u>	<u>Quantity 5% chlorine bleach</u>
<u>1 to 3 feet</u>	<u>1.5 cups</u>
<u>4 feet</u>	<u>3 cups</u>
<u>5 feet</u>	<u>4.5 cups</u>
<u>6 feet</u>	<u>6 cups</u>
<u>8 feet</u>	<u>12 cups</u>
<u>10 feet</u>	<u>18 cups</u>

- Add this quantity of chlorine bleach directly into the well interior.

Cisterns:

- Spring collection, basins or drinking water storage tanks should be disinfected in the same manner as dug wells. Pump out or drain the water in the cistern; scrub down the interior walls; fill or allow the tank to refill with clear water; and, if it is not known, calculate the capacity of the tank or containment by using one of the following formulas:
- Square or rectangular tank measure in feet:
 - $\text{Capacity (gallons)} = \text{length} \times \text{width} \times \text{depth} \times 7.5$
- Cylindrical tank measure in feet:
- $\text{Capacity (gallons)} = \text{diameter} \times \text{diameter} \times \text{length} \times 5.9$
 - Add the amount of 5% chlorine solution indicated in the following table:

<u>Capacity (gallons)</u>	<u>Quantity of 5 % chlorine bleach</u>
<u>500</u>	<u>5 quarts</u>
<u>750</u>	<u>7.5 quarts</u>

Floods

1,000 10 quarts

2,000 20 quarts

4,000 40 quarts

- This amount of chlorine bleach should be poured directly into the cistern or storage tank.
- After the well, cistern or storage tank has been dosed with the appropriate amount of chlorine, it should be pumped just long enough to bring the treated water through the pump to all faucets on the distribution system.
- The odor at the faucets will be a good test to indicate chlorine presence. If the above dosages do not produce an obvious chlorine odor in the water, add more chlorine bleach solution until a distinct odor is noticed.
- Let the chlorinated well and distribution systems stand for 12 to 24 hours. This will allow time for the chlorine solution to disinfect the well or water source and distribution system.
- After at least 12 hours, the system should be pumped until no further trace of chlorine is noticeable in the water.
- If you have public or municipal sewers, run each tap until the disinfectant odor disappears, while allowing the water to go down the fixture drain.
- If you have a septic system, it is preferable to first connect a garden hose to an outside faucet or hydrant and run the water into a roadside ditch or drainage swale, until the disinfectant odor disappears. Then, turn on each water faucet to discharge the chlorine residual in the immediate vicinity of the faucet.
- Following disinfection of the water supply system, the water should be sampled for bacteriological analysis.

Flood-related Crop Damage

As one of nature's most powerful forces, large quantities of water can leave behind a very chaotic and overwhelming scene. It is important to remain calm and try to keep the recovery process in perspective. You cannot do everything you need to do to recover all at once, but you can take steps toward that end.

Floods

Report:

- Review the Indiana Disaster Assistance for Agriculture checklist at <http://www.in.gov/isda>,
- Report all livestock, crop and equipment losses to the local United States Department of Agriculture Farm Services Agency office as soon as reasonably possible. This information will be needed to support state government requests for agricultural disaster declaration.
- Remedy flood-related hazards. Debris may be washed into pastures or farm land. Fences may be damaged or destroyed.
- Wet feed and grain will heat and mold very quickly, leading to spoilage and the threat of spontaneous combustion.
- Until tested, wet feed should be presumed harmful to animals. Feedstuffs may contain contaminants from floodwaters and/or mold spores that sometimes produce dangerous toxins.
- Silage should be disposed of in a proper manner. Damp silage has an increased risk of mycotoxin contamination due to poor fermentation, and may also contain higher levels of coliform bacteria.
- As soon as possible, dry grain should be removed and stored separately.
- Dry bales of hay should be moved and restacked in a dry location.
- Producers may send samples of feed and silage to either of Indiana's Animal Disease Diagnostic Laboratories at Purdue University and in Dubois, IN, to test for aflatoxins and mycotoxins.
- For assistance with feed or chemicals affected by flooding, contact the Office of the Indiana State Chemist at <http://www.isco.purdue.edu>.
- To report or request assistance regarding a manure or chemical spill, contact the Indiana Department of Environmental Management.

Get Flood Insurance

Flood insurance is available through approximately 90 insurance companies in more than 20,300 participating communities nationwide and through the National Flood Insurance Program (NFIP). Ninety percent of all natural disasters in the United States involve some degree of flooding. Yet, most homeowners' insurance policies do not cover flooding. Since even a few inches of water can cause extensive, costly damage, buying flood insurance can provide protection and peace of mind. Flood

Floods

insurance is available to everyone, not just homeowners. Renters can buy policies that cover their belongings inside a rental unit. Businesses also can cover their properties and contents.

Hoosiers know that flood insurance can protect against financial devastation, but insurance agents may not be as familiar with flood insurance policies as they are with the other types of policies they offer. Therefore, knowing as much as possible about the coverage of different types of policies is critical to getting the most out of it.

Know why to be insured:

- Compared to fire, people in floodplains are four times more likely to have a flood during the course of a 30-year mortgage.
- Most homeowners, renters and business insurance policies do NOT cover flood damage.
- More than 25% of flood insurance claims occur in areas outside identified Special Flood Hazard Areas, so property owners who do not live near bodies of water should not be lulled into a false sense of security.
- Flood insurance coverage is available for qualifying structures and their contents whether or not the structure is in a high risk area.

Know the differences between flood insurance and disaster assistance:

- The Federal Emergency Management Agency (FEMA) provides aid only in presidentially declared disasters, but flood insurance covers flood damage irrespective of disaster declarations.
- Federal disaster assistance declarations are issued in less than 50% of flooding events.
- If you are uninsured and receive federal disaster assistance after a flood, you must purchase flood insurance to remain eligible for future disaster relief.
- Disaster assistance does not cover as much as flood insurance, and flood insurance claims can be paid very rapidly after the event.
- Flood insurance never has to be repaid, unlike a federal disaster loan.
- Policies are covered by policy holders' premiums, while tax dollars fund federal disaster relief.

Floods

Know how to get flood insurance:

- Flood insurance is sold separately from homeowners insurance and not all agencies offer it, but those who do are backed by the federal government. Flood insurance is also available through the NFIP as long as your community participates in the program.
- Flood insurance is available from any licensed insurance agent or through NFIP by calling 1-800-427-4661.
- There is usually a 30-day waiting period from the date of purchase before a new flood policy goes into effect.

Know what protection is available:

- Flood insurance protects against losses to buildings and their contents, NOT the land itself.
- To be considered a flood, the waters must cover at least two acres or affect at least two properties.
- Different types of policies are available depending on flood risk. A property's flood risk is shown on flood hazard maps available at www.floodsmart.gov.
- If you live in a high-risk area, you will need a Standard Policy available to communities that participate in the NFIP. Most mortgage lenders will require you have such a policy before they will approve your loan. Building and contents coverage must be applied for separately under a Standard Policy.
- If your home is in a low or moderate risk zone, talk to your flood insurance agent about a low-cost Preferred Risk Policy. Preferred Risk Policies have options for buildings and/or contents.
- Because premium rates for flood insurance are based on flood risk, your neighbor's property may be in a different risk category than your own and they may have a different premium. However, the insurance rate is the same nationwide for properties in the same risk category.
- Home and business owners should purchase coverage on both structure and contents.
- Renters should purchase contents insurance.
- Each structure on a property must have its own insurance policy. That means a separate policy is required for a detached garage, guest house or any other structure you wish to protect. Additional, separate policies also are required to insure the contents of each structure.

Floods

Flood Insurance Claim and Repair Process

Flood insurance protects what for most people is the single most important financial asset, their home or business. Homeowners can include contents coverage in their policies. Residential and commercial renters who purchase flood insurance coverage for their buildings and contents/inventory are protecting their livelihoods. Filing an insurance claim or repairing flood damage to a home or building can be a daunting task for any home or business owner. The following tips will help clarify the process of filing a claim and working with a contractor to repair the damage.

Preparing to file a claim:

- Separate damaged items from undamaged items. If necessary, place items outside the home or business.
- Local officials may require the disposal of damaged items. Keep a swatch or other sample of the damaged items for the adjuster.
- Make a list of damaged or lost items and include the age and value where possible. If possible, supply receipts for those lost items to the adjuster. This is not only required by the policy but is necessary for the adjuster to investigate and settle your claim.
- If you have damage estimates prepared by a contractor(s), provide them to the adjuster since they will be considered in the preparation of your repair estimate.
- Take photos of any water in the house and damaged personal property as evidence for the adjuster to use to prepare your repair estimate.
- Take a photo inventory of your personal property, such as clothes, jewelry, furniture, computers and audio/video equipment. Photos and video of your home, as well as sales receipts and the model and serial numbers of items, will make filing a claim simpler.
- Policies require that you cooperate with the adjuster or representative in the investigation of your claim. Within 60 days of loss, you will need to file a “proof of loss,” which is your signed and sworn statement of the amount you are claiming under your policy. The adjuster assigned to your loss or your agent can assist you with this.

Filing a claim:

Floods

- A flood insurance policyholder should immediately report any flood loss to their insurance company or agent. An insurance claims adjuster will be assigned to inspect the structure, estimate the cost of repairs and send the estimate to the insurance company for review and payment approval.
- Call your insurance company if an adjuster has not been assigned to you within several days.
- A policyholder will be required to submit a proof of loss as part of the claim package. A proof of loss is the policyholder's valuation of the damages and is a sworn statement made by the policyholder substantiating the insurance claim. The proof of loss is required within 60 days of the loss.
- Proof of loss will be required on both the building loss and the contents should there be coverage for both. The insurance company will usually provide a proof of loss form and in most cases prepare the form based on the adjuster's estimate of repair costs.

Damage estimate discrepancies between you and the adjuster:

- A policyholder who disagrees with the final figures can submit his/her own "proof of loss" or when signing and returning the company's proof of loss, simply send a letter outlining why he/she does not agree with the amount offered by the company. It is essential the document be sent to the insurance company because until the proof of loss package is received, the insurance company will be unable to issue a payment to the insured.
- An important point to keep in mind is that the policyholder does not have to accept the initial estimate of the damage prepared by a claims adjuster. If the policyholder believes the claims adjuster did not cover all damages in the estimate, the policyholder can make claim for the additional damages as long as the additional losses are claimed in the proof of loss and submitted within 60 days of the loss.
- Insurance company adjusters, independent adjusters and repair contractors all use software programs developed to write itemized estimates on repair of structures. If an insurance company and the contractor are in agreement on the repairs needed, there should be little difference in the final cost of the repairs. These estimating programs are based on national data which is continuously updated with material and labor costs in different areas of the country so they stay up-to-date.

Floods

Damage estimate discrepancies between the adjuster and the contractor(s):

Discrepancies between a contractor's price for repairs and an insurance adjuster's estimate could happen for several reasons:

- Remote areas raise problems with calculating repair costs because there are few, if any local contractors. When contractors are forced to drive long distances to make repairs, labor costs rise.
- Disasters may create a spike in material costs due to shortages and demand.
- The adjuster may have missed damage during the inspection process or damage was hidden from view. These oversights may require a second inspection.
- Although it is rare, there have been cases of some repair contractors taking advantage of disaster situations to inflate repair costs.
- If a policyholder finds their contractor's estimate is more than the claims adjuster's estimate, the policyholder needs to notify the insurance company immediately so the claims adjuster can meet with the contractor to resolve whatever differences there may be.

Flood Insurance Consumer Alert

Unfortunately, many home and business owners do not find out until it is too late that their homeowners' and business insurance policies do NOT cover flooding. Hoosiers know that flood insurance can protect against financial devastation, but insurance agents may not be as familiar with flood insurance policies as they are with the other types of policies they offer. Therefore, knowing as much as possible about the coverage of different types of policies is critical to getting the most out of it. These tips from the Indiana Department of Insurance will help give you the information you need to decide whether to invest.

Flood defined:

- A flood is an excess of water (or mud) on land that is normally dry. The National Flood Insurance Program (NFIP) defines a flood as a general and temporary condition of partial or complete inundation of two or more acres of normally dry land area; or of two or more properties (at least one of which is the policyholder's property) from overflow of inland or tidal

Floods

waters; unusual and rapid accumulation of surface waters from any source; mudflow; or collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining, caused by waves or currents of water exceeding anticipated cyclical levels.

Homeowners' insurance coverage:

- Homeowners' insurance policies generally will NOT cover flood losses. Some companies offer a Hydrostatic Pressure Endorsement to insure your property for the increased exertion of water on the foundation of your structure, which is a condition frequently accompanying the rising waters of a flood however, most of these endorsements only cover collapse of the structure due to hydrostatic pressure and do not insure for damage, other than building collapse, due to hydrostatic pressure accompanying the flood.
- Some homeowners' insurance policies provide coverage caused by the backup of sewers or drains; however, most (but not all) sewer and drain coverage provisions exclude backup as a result of flood and most limit payment for loss from sewer and drain backup to varying amounts (usually less than \$5,000).
- If you insure certain property (examples: antiques, firearms, jewelry, camera equipment, objects of art, etc.) under a scheduled property floater (usually an endorsement to your homeowners' policy), these specifically listed items may be covered for loss by flood. Review your policy to make sure.

Automobile insurance coverage:

- On your automobile policy, if you carry "Other than Collision" coverage (formerly called Comprehensive Coverage) on these vehicles, the flood damage to your auto, SUV or motorcycle should be covered up to the actual cash value at the time of loss, less the deductible amount.
- If you are carrying towing and road service coverage as part of your auto policy, you may also be covered for the removal of your vehicle from the flooded area.

Mortgage requirements:

Floods

- Most mortgage lenders will require you have a flood insurance policy before they will approve your loan, however, do not confuse any contractual obligations between you and your mortgage company with the flood exposure you may face. Even if your mortgage company does not require you to purchase flood insurance this does not mean you are immune from experiencing a flood loss. If there are any conditions that could cause you to experience flood damaging your property, consider how you would pay for such a loss.

Flood insurance:

- You can purchase flood insurance for your home or business, regardless of whether the property is in or out of a floodplain, directly from your property and casualty insurance agent or insurance company if your community participates in the NFIP.
- To find out if your community participates, visit <http://www.fema.gov/cis/IN.pdf>. Your insurance agent or insurance company also can confirm whether flood insurance is available to you and what it will cost.

NFIP flood maps:

- Flood maps are the tool the Federal Emergency Management Agency (FEMA) uses to determine the flood risk that homeowners face. Prior to the National Flood Insurance Program (NFIP), homeowners had no way to protect themselves from the devastation of flooding. In many parts of the United States unchecked development in the floodplain was increasing the flood risk. Today, such maps and other resources and information are readily available to homeowners through the Map Service Center (MSC).
- Visit <http://msc.fema.gov> and see the freely downloadable how-to guide to create FIRMettes.
- FIRMettes are full-scale sections of a FEMA Flood Insurance Rate Map (FIRM) that you create yourself online by selecting the desired area from an image of a FIRM. There is no charge for making a FIRMette, and because it is a full-scale section of an official FEMA FIRM, it can be used in all aspects of the NFIP, including floodplain management, flood insurance and enforcement of mandatory flood insurance purchase requirements.

For more information on flood insurance, visit <http://www.fema.gov/business/nfip/>, or contact the Indiana Department of Insurance at (800) 622-4461, or www.in.gov/idoi.

Floods

National Flood Insurance Program (NFIP)

The National Flood Insurance Program (NFIP) was created in 1968 to make federally backed flood insurance available to property owners, renters and businesses in participating communities. Ninety percent of all natural disasters in the United States involve some degree of flooding. Since even a few inches of water can cause extensive, costly damage, buying flood insurance can provide protection and peace of mind.

Unfortunately, many home and business owners do not find out until it is too late that their homeowners' and business insurance policies do NOT cover flooding. The NFIP offers a separate policy that protects what for most people is the single most important financial asset, their home or business. Homeowners can include contents coverage in their NFIP policy. Residential and commercial renters can purchase flood insurance coverage for their buildings and contents/inventory and thus protect their livelihoods.

Eligibility:

- Homeowners, business owners and renters all can purchase flood insurance as long as their community participates in the NFIP.
- More than 20,300 communities nationwide now participate in the NFIP.
- Contact local government officials or visit www.floodsmart.gov to determine whether your community participates in the NFIP.
- Residents do not have to live in a floodplain or a mapped flood zone to buy flood insurance. More than 25% of flood insurance claims come from medium- or low-risk flood areas.
- Even if your residence or business has been flooded before, you are still eligible to purchase a flood insurance policy provided your community is participating in the NFIP.
- You can purchase National Flood Insurance at any time. There is usually a 30-day waiting period after you buy flood insurance before the policy is effective. In most cases, the policy does not cover a "loss in progress," which is defined as a loss occurring as of midnight on the first day your policy goes into effect. Essentially, if you buy flood insurance after a flood, it will NOT cover your past losses, only losses after the policy goes into effect.

Coverage:

Floods

- Single-family homes can be insured for up to \$250,000 and up to an additional \$100,000 in contents coverage.
- Condominium unit owners can get up to \$250,000 in structural coverage and up to \$100,000 in contents coverage.
- Renters can get up to \$100,000 in contents coverage.
- Businesses can get up to \$500,000 in commercial structural coverage and up to \$500,000 in contents coverage.
- Home-based business owners need to purchase separate coverage for the business and/or contents. Coverage is not automatically included under a homeowner's flood insurance policy, even if the business is located inside the home.
- While basement improvements such as finished walls, floors and personal belongings in a basement are not covered by flood insurance, structural elements and essential equipment within a basement are. The following items are covered under building coverage as long as they are connected to a power source, if required, and installed in their functioning location:
 - Sump pumps
 - Well water tanks and pumps, cisterns and the water in them
 - Oil tanks and the oil in them
 - Natural gas tanks and the gas in them
 - Pumps and/or tanks used in conjunction with solar energy
 - Furnaces, water heaters, air conditioners and heat pumps
 - Electrical junction and circuit breaker boxes and required utility connections
 - Foundation elements
 - Stairways, staircases, elevators and dumbwaiters
 - Unpainted drywall, walls and ceilings, including fiberglass insulation
 - Cost of cleanup.
- Flood insurance policies reimburse individuals for some actions taken to prevent flood damage. These actions can include moving the insured contents to a safe place and/or the cost of purchasing sandbags, plastic sheeting, lumber, pumps, etc.
- It will also pay up to \$30,000 to help pay flood plain ordinance compliance costs if the home has been damaged by a flood. This assistance is also known as Increased Cost of Compliance (ICC).

Floods

Policies and premiums:

- Cost is determined in part by whether you live in a flood plain; also known as a Special Flood Hazard Area (SFHA). Local building officials should have maps showing these areas and residents can determine whether they are in a low, medium, or high-risk area by checking these maps. You may also want to visit www.floodsmart.gov.
- If you live in a high-risk area, you will need a Standard Policy available to communities that participate in the NFIP. Most mortgage lenders will require you have such a policy before they will approve your loan. Building and contents coverage must be applied for separately under a Standard Policy.
- If your home is in a low- or moderate-risk zone, your building may qualify for a low-cost, Preferred Risk Policy. Preferred Risk Policies have options for buildings and/or contents.
- Another way to reduce your premium is through an elevation rating. If the lowest floor of your house is above the base flood elevation (the predicted flood depth in your area), you can qualify for lower rates.

Extreme Heat

Extreme Heat

What to Know About Extreme Heat

Extreme heat occurs during the summer months and is easy to predict. Listen to the local station and they will inform you when a heat wave is in the area. Temperatures that hover 10 degrees or more above the average high temperature for the region and last for several weeks are defined as extreme heat. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a “dome” of high atmospheric pressure traps hazy, damp air near the ground. Excessively dry and hot conditions can provoke dust storms and low visibility.

In a normal year, approximately 175 Americans die from overexposure to extreme heat. Extreme heat kills by pushing the human body beyond its limits. Under normal conditions, the body’s internal thermostat produces perspiration that evaporates and cools the body. However, in extreme heat and high humidity evaporation is slowed and the body must work extra hard to maintain a normal temperature.

Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. The following conditions can make you more susceptible to extreme heat related illnesses and complications.

- Men sweat more than women, so are more susceptible to heat illness because they become more quickly dehydrated.
- Those who are sick or overweight are also at increased risk.
- Sunburn can significantly slow the skin’s ability to release excess heat.
- Young children are at great risk. NEVER leave a child, of any age, inside a vehicle. Even if you are just leaving the vehicle for a minute and have all the windows rolled down it is extremely dangerous to leave anyone inside a vehicle during summer temperatures.
- Elderly people do not adjust as well as young people to sudden changes in temperature. They are more likely to have chronic medical conditions that can upset normal body responses to heat. They are also more likely to take prescription medicines that impair the body's ability to regulate its temperature or that inhibit perspiration.

Extreme Heat

- People living in urban areas may be at greater risk from effects of a prolonged heat wave than those living in rural areas. Asphalt and concrete store heat longer and gradually release heat at night, which can produce higher nighttime temperatures known as the “urban heat island effect.” Also, stagnant atmospheric conditions trap pollutants in urban areas, thus adding contaminated air to excessively hot temperatures.
- The risk for heat-related illness and death may increase among people using the following drugs: (1) psycho tropics, which affect psychic function, behavior or experience (e.g. haloperidol or chlorpromazine); (2) medications for Parkinson’s disease, because they can inhibit perspiration; (3) tranquilizers such as phenothiazines, butyrophenones and thiozanthenes; and (4) diuretic medications or "water pills" that affect fluid balance in the body.

Terms to know:

- Heat wave: Prolonged period of excess heat often combined with excessive humidity.
- Heat Index: A number in degrees Fahrenheit (F) that tells how hot it feels when relative humidity is added to the air temperature.
- Heat rash: A skin irritation caused by excessive sweating during hot, humid weather. It can occur at any age but is most common in young children. Heat rash looks like a red cluster of pimples or small blisters. It is more likely to occur on the neck and upper chest, in the groin, under the breasts and in elbow creases.
- Heat cramps: Muscular pains and spasms due to heavy exertion. Although heat cramps are the least severe heat-related illness, they are often the first signal that the body is having trouble with the heat. Symptoms include:
 - Body temperature beginning to rise up to 102° F
 - Flushed looking appearance
 - Muscle cramps
- Heat exhaustion: Typically occurs when people exercise heavily or work in a hot, humid place where body fluids are lost through heavy sweating. Blood flow to the skin increases, causing blood flow to decrease to vital organs. This results in a form of mild shock. If not treated, the victim’s condition will worsen; body temperature will continue rising and the victim may suffer heat stroke.

Extreme Heat

Symptoms may include:

- Body temperature over 102° F
- Cool, moist, pale or flushed skin
- Heavy sweating
- Muscle cramps
- Nausea
- Vomiting
- Weakness
- Fatigue
- Feeling faint
- Diarrhea
- Skin feels cool and clammy

Heat stroke / sun stroke: A life-threatening condition. The victim's temperature control system, which produces sweating to cool the body, stops working. The body temperature can rise so high that brain damage and death may result if the body is not cooled quickly. Symptoms may include:

- Body temperature over 104° F
- Hot, red, dry skin
- Nausea
- Vomiting
- Headache
- Weakness
- Fatigue
- Confusion
- Rapid, weak pulse
- Shallow breathing
- Coma, seizures and death

What to do during Extreme Heat

Extreme heat kills by pushing the human body beyond its limits. Under normal conditions, the body's internal thermostat produces perspiration that evaporates and cools the body. However, in extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature. Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Know if you are at a particularly high risk for a heat emergency and take appropriate protective measures.

Stay in touch:

- NEVER leave animals, children or the elderly inside a vehicle! Even if you are just leaving the vehicle for a minute and have all the windows rolled down, it is extremely dangerous to leave anyone inside a vehicle during summer temperatures.

Extreme Heat

- Use the buddy system when working in extreme heat, and take frequent breaks.
- Check on family, friends and neighbors who do not have air conditioning and who spend much of their time alone.

Keep yourself hydrated and nourished:

- Drink more fluids, regardless of your activity level. Do not wait until you are thirsty to drink. If your doctor generally limits the amount of fluid you drink or has you on water pills, ask him how much you should drink while the weather is hot.
- Do not drink liquids that contain alcohol or large amounts of sugar or caffeine. They can make you feel good briefly, but make the heat's effects on your body worse. This is especially true about beer, which dehydrates the body. Also avoid very cold drinks to pre-empt stomach cramps.
- Eat small meals and eat more frequently. Avoid foods that are high in protein which increase metabolic heat. Although heat lessens your appetite, your body needs proper nutrition to function.
- Avoid using salt tablets unless directed to do so by a physician.

Take it easy:

- Slow down. Avoid strenuous activity. If you must do strenuous activity, do it during the coolest part of the day, which is usually in the morning between 4 and 7 a.m.
- Cut down on exercise. If you must exercise, drink two to four glasses of cool, nonalcoholic fluids each hour. A sports beverage can replace the salt and minerals you lose in sweat. If you are on a low-salt diet, talk with your doctor before drinking a sports beverage.
- Stay indoors and, if at all possible, stay in an air-conditioned place. If your home does not have air conditioning, go to the movie theatre, shopping mall or public library. Even a few hours spent in air conditioning can help your body stay cooler when you go back into the heat. Call your local health department to see if there are any heat-relief shelters in your area.
- Electric fans may provide comfort, but when the temperature is in the high 90s, fans will not prevent heat-related illness. Taking a cool shower or bath or moving to an air-conditioned place is a much better way to cool off.

Protect your body:

Extreme Heat

- Wear loose-fitting, lightweight, light-colored clothing. Light colors reflect away the sun's heat.
- Wear proper SPF sunscreen for your skin type.
- Protect your face and head by wearing a wide-brimmed hat.
- Wear sunglasses to protect your eyes from harmful UV rays.
- Know the symptoms of and how to respond to heat emergencies.

Preparing for Extreme Heat

Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Know if you are at a particularly high risk for a heat emergency and take appropriate precautionary measures.

In a normal year, approximately 175 Americans die when extreme heat pushes their body beyond its limits. Under normal conditions, the body's internal thermostat produces perspiration that evaporates and cools the body. However, in extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature.

Prepare your home:

- Install window air conditioners snugly, and insulate if necessary.
- Check air-conditioning ducts for proper insulation.
- Install temporary window reflectors (for use between windows and drapes), such as aluminum foil-covered cardboard, to reflect heat back outside.
- Weather-strip doors and sills to keep cool air in.
- Cover windows that receive morning or afternoon sun with drapes, shades, awnings or louvers (Outdoor awnings or louvers can reduce the heat that enters a home by up to 80%).
- Keep storm windows up all year.

Prepare your community:

- Publish a special section with emergency information on extreme heat. Localize the information by including the phone numbers of local emergency services offices, the American Red Cross and hospitals.
- Interview local physicians about the dangers of sunburn, heat exhaustion, heat stroke and other possible conditions caused by excessive heat.

Extreme Heat

- During a drought, run a week-long series suggesting ways that individuals can conserve water and energy in their homes and workplaces.
- Interview local officials and representatives of the U.S. Department of Agriculture about special steps farmers can take to establish alternative water supplies for their crops.
- Sponsor a “Helping Your Neighbors” program through your local school system to encourage children to think of those persons who require special assistance, such as elderly people, infants or people with disabilities, during severe weather conditions.

Working Safely in Extreme Heat

Pace yourself. If you are not accustomed to working or exercising in a hot environment, start slowly and pick up the pace gradually. If exertion in the heat makes your heart pound and leaves you gasping for breath, STOP all activity. Get into a cool area or at least in the shade and rest, especially if you become lightheaded, confused, weak or faint.

Employers should take the following steps to protect workers from heat stress:

- Schedule maintenance and repair jobs in hot areas for cooler months.
- Schedule hot jobs for the cooler part of the day.
- Acclimatize workers by exposing them for progressively longer periods to hot work environments.
- Reduce the physical demands of workers.
- Use relief workers or assign extra workers for physically demanding jobs.
- Provide cool water or liquids to workers.
- Avoid serving drinks with caffeine, alcohol or large amounts of sugar.
- Provide rest periods with water breaks.
- Provide cool areas for use during break periods.
- Monitor workers who are at risk of heat stress.
- Provide heat stress training that includes information about:
 - Worker risk
 - Prevention
 - Treatment
 - Symptoms
 - Personal protective equipment
 - The importance of monitoring yourself and coworkers for symptoms

Extreme Heat

Workers should avoid exposure to extreme heat, sun and high humidity when possible. When these exposures cannot be avoided, workers should take the following steps to prevent heat stress:

- Wear light-colored, loose-fitting, breathable clothing such as cotton.
- Avoid non-breathing synthetic clothing.
- Gradually build up to heavy work.
- Schedule heavy work during the coolest parts of the day.
- Take more breaks in extreme heat and humidity.
- Take breaks in the shade or a cool area when possible.
- Drink water frequently. Drink enough water that you never become thirsty.
- Avoid drinks with caffeine, alcohol and large amounts of sugar.
- Be aware that protective clothing or personal protective equipment may increase your risk of heat stress.
- Monitor your physical condition and that of your coworkers.

Heat Emergency First Aid

Extreme heat brings the possibility of heat-induced illnesses. In a normal year, approximately 175 Americans die from extreme heat. Extreme heat kills by pushing the human body beyond its limits. Under normal conditions, the body's internal thermostat produces perspiration that evaporates and cools the body. However, in extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature. You should know the factors that increase an individual's risk of experiencing a heat-related illness and monitor yourself and others for symptoms.

Sunburn:

- Symptoms: Skin redness and pain, possible swelling, blisters, fever, headaches.

Treatment:

- Take a shower using soap to remove oils that may block pores, preventing the body from cooling naturally.
- Apply sterile dressings to any blisters, and get medical attention.
- Never put butter or other oils on a burn. They lock in heat and can make the burn worse.

Heat rash:

Extreme Heat

- Symptoms: Heat rash is a skin irritation caused by excessive sweating during hot, humid weather. It can occur at any age but is most common in young children. Heat rash looks like a red cluster of pimples or small blisters. It is more likely to occur on the neck and upper chest, in the groin, under the breasts and in elbow creases

Treatment:

- The best treatment for heat rash is to provide a cooler, less humid environment.
- Keep the affected area dry.
- Dusting powder may be used to increase comfort.

Heat cramps:

- Symptoms: Painful spasms, usually in leg and abdominal muscles; heavy sweating.

Treatment:

- Get the victim to a cooler location.
- Lightly stretch and gently massage affected muscles to relieve spasms.
- Give sips of up to a half glass of cool water every 15 minutes.
- Discontinue liquids if victim becomes nauseated.

Heat exhaustion:

- Symptoms: Heavy sweating but skin may be cool, pale or flushed. Weak pulse. Normal body temperature is possible, but will likely be elevated. Fainting or dizziness, nausea, vomiting, exhaustion and headaches are possible.

Treatment:

- Move victim to an air-conditioned place or fan them if an immediate shelter is unavailable.
- Help the victim lie down.
- Loosen or remove clothing.
- Apply cool, wet cloths.
- Give sips of water if the victim is conscious.

Extreme Heat

- Be sure water is consumed slowly to avoid nausea.
- Give the victim time to fully rest and recover in a cool environment.
- If there is no improvement or if the victim is unable to drink fluids, take them to the emergency room or call 9-1-1 immediately as heat exhaustion can turn into heat stroke if not handled quickly.

Heat stroke: This is a severe medical emergency!

- Symptoms: High body temperature, hot, red, dry skin; rapid, weak pulse; and rapid shallow breathing. Victim will probably not sweat unless they were sweating from recent strenuous activity.

Treatment:

- Call 9-1-1 or emergency medical services or get the victim to a hospital immediately as any delay can be fatal.
- If help is not immediately available, the victim's body must be cooled quickly to prevent death.
- Move the victim to a cooler environment, if possible, and remove all clothing.
- Immerse the victim in a cool bath, or use wet sheets, ice bags, fans, air conditioners to reduce the body temperature.
- Place bags of ice next to the victim's major arteries in their neck, armpits and groin. The ice will cool the blood and the bloodstream will carry the cooled blood through the body.
- Watch for signs of breathing problems and be prepared to start rescue breathing and CPR if their pulse or breathing stops.

Drought Time Water Conservation

All areas in the United States are at risk of drought at any time of the year. Droughts occur when a long period passes without substantial rainfall, and can affect vast territorial regions and large population numbers. Droughts also create environmental conditions that increase the risk of other hazards such as fire, flash flood and possible landslides and debris flow.

A prolonged drought can have a serious economic impact on a community. Increased demand for water and electricity may result in shortages of the resources. An emergency water shortage can be caused by prolonged drought, poor water supply management or contamination of a surface water

Extreme Heat

supply source or aquifer. Moreover, food shortages may occur if agricultural production is stalled or impeded by a loss of crops or livestock.

The following tips were developed by a coalition of specialists on water conservation in Florida and are consistent with the recommendations developed through the National Disaster Education Coalition.

General:

- Never pour water down the drain when there may be another use for it. Use it to water your indoor plants or garden.
- Make sure your home is leak-free. One drop per second wastes 2,700 gallons of water per year! When you are certain that no water is being used in your home, take a reading of the water meter. Wait 30 minutes and then take a second reading. If the meter reading changes, you have a leak!
- Repair dripping faucets by replacing washers.

Bathroom:

- Check for toilet leaks by adding food coloring to the tank. If you have a leak, the color will appear in the bowl within 30 minutes (Flush immediately to avoid stains.).
- If the toilets handle frequently sticks in the flush position letting water run constantly, replace or adjust it.
- Leaky toilets usually can be fixed inexpensively by replacing the flapper.
- Install a toilet displacement device to cut down on the amount of water needed for each flush (Contrary to popular opinion, a brick should not be used because it can dissolve and the loose pieces can cause damage to the internal parts. Instead, place a one-gallon plastic jug of water into the tank to displace toilet flow or purchase a device available at most hardware and home centers designed for this purpose.) Be sure installation does not interfere with the operating parts.
- Consider purchasing a low-volume toilet that uses less than half the water of older models.
NOTE: In many areas, low-volume units are required by law.
- Take shorter showers.
- Replace your showerhead with an ultra-low-flow version.
- Place a bucket in the shower to catch excess water for watering plants.

Extreme Heat

- In the shower, turn the water on to get wet; turn off to lather up; then turn the water back on to rinse. Repeat when washing your hair.
- Don't let the water run while brushing your teeth, washing your face or shaving.
- Avoid flushing the toilet unnecessarily. Dispose of tissues, insects and other similar waste in the trash rather than the toilet.

Kitchen:

- Operate automatic dishwashers only when they are fully loaded. Use the "light wash" feature to use less water.
- When hand washing dishes, save water by filling two containers - one with soapy water and the other with rinse water containing a small amount of chlorine bleach.
- Most dishwashers can clean soiled dishes very well, so dishes do not have to be rinsed before washing. Just remove large particles of food and put the soiled dishes in the dishwasher.
- Store drinking water in the refrigerator. Don't let the tap run while you are waiting for water to cool.
- Do not use running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator or use the defrost setting on your microwave.
- Do not waste water waiting for it to get hot. Capture it for other uses such as plant watering or heat it on the stove or in a microwave.
- Clean vegetables in a pan filled with water rather than running water from the tap. Re-use the water that vegetables are washed in for cleaning or watering plants.
- Kitchen sink disposals require lots of water to operate properly. Start a compost pile as an alternate method of disposing of food waste or simply dispose of food in the garbage.

Laundry:

- Operate automatic clothes washers only when they are fully loaded or set the water level for the size of your load.

Car washing:

- Use a shut-off nozzle on your hose that can be adjusted down to a fine spray, so that water flows only as needed. When finished, turn it off at the faucet instead of at the nozzle to avoid

Extreme Heat

leaks. Check hose connectors to make sure plastic or rubber washers are in place to prevent leaks.

- Consider using a commercial carwash that recycles water. If you wash your own car, park on the grass so that you will be watering it at the same time.

Lawn care:

- Do not overwater your lawn. Lawns only need to be watered every five to seven days in the summer, and every 10 to 14 days in the winter. A heavy rain eliminates the need for watering for up to two weeks. Most of the year, lawns only need one inch of water per week. Buy a rain gauge so that you can better determine when to water.
- Water in several short sessions rather than one long one in order for your lawn to better absorb moisture. For example, water in ten-minute sessions spaced 30 minutes apart, rather than one straight 30-minute session.
- Water lawns during the designated hours.
- Position sprinklers so water lands on the lawn and shrubs and not on paved areas.
- Avoid sprinklers that spray a fine mist; most of the mist evaporates before it reaches the lawn. Check sprinkler systems and timing devices regularly to be sure they operate properly.
- Raise the lawnmower blade to at least three inches, or to its highest level. A higher cut encourages grass roots to grow deeper, shades the root system and holds soil moisture.
- Avoid over fertilizing your lawn. Applying fertilizer increases the need for water. Apply fertilizers that contain slow-release, water-insoluble forms of nitrogen.
- Use a broom or blower instead of a hose to clean leaves and other debris from your driveway or sidewalk.
- Do not leave sprinklers or hoses unattended. A garden hose can pour out 600 gallons or more in only a few hours. Use a bell timer to remind yourself to turn sprinklers off.

Pool:

- If you have a swimming pool, consider installing a new water-saving pool filter. A single back flushing with a traditional filter uses 180 to 250 gallons of water.
- Cover pools and spas to reduce evaporation of water.

Long-term outdoor conservation:

Extreme Heat

- Plant native and/or drought-tolerant grasses, ground covers, shrubs and trees. Once established, they do not need water as frequently and usually will survive a dry period without watering. They also require less fertilizer and herbicides. Landscape with plants that are heat- and drought- tolerant and that do not require much water to live. Small plants require less water to become established. Group plants together based on similar water needs.
- Install irrigation devices that are the most water efficient for each use. Micro and drip irrigation and soaker hoses are examples of efficient devices.
- Use mulch to retain moisture in the soil (Help preserve native cypress forests by selecting other types of mulch such as treated melaleuca.). Mulch also helps control weeds that compete with landscape plants for water.
- Avoid purchasing recreational water toys that require a constant stream of water.
- Avoid installing ornamental water features (such as fountains) unless they use recycled water.

Within the community:

- Participate in public water conservation meetings conducted by your local government, utility or water management district.
- Follow water conservation and water shortage rules. You are included in the restrictions even if your water comes from a private well.
- Encourage your employer to promote water conservation in the workplace.
- Patronize businesses that practice water conservation, such as only serving water on request.
- Report water losses (broken pipes, open hydrants, errant sprinklers, abandoned free-flowing wells, etc.) to the property owner, local authorities or your water management district.
- Encourage your school system and local government to help develop and promote a water conservation ethic.
- Support projects increasing the use of reclaimed wastewater for irrigation and other uses.
- Support efforts that create a concern for water conservation among tourists.
- Promote water conservation in community newsletters, on bulletin boards and by example. Encourage your friends, neighbors and co-workers to be “water smart.”
- Conserve water because it is the right thing to do - even when someone else is footing the bill, such as when you are staying at a hotel.
- Try to do one thing each day that will result in saving water. Every drop counts!

Extreme Heat

Long-term water conservation:

- Retrofit all household faucets by installing aerators with flow restrictors.
- Consider installing an instant hot water heater on your sink.
- Insulate your water pipes to reduce heat loss and prevent them from breaking if you have a sudden and unexpected spell of freezing weather.
- If you are considering installing a new heat pump or air-conditioning system, the new air-to-air models are just as efficient as the water-to-air type and do not waste water.
- Install a water-softening system only when the minerals in the water would damage your pipes. Turn the softener off while on vacation.
- When purchasing a new appliance, choose one that is more energy and water efficient.
- If you have a well at home, check your pump periodically. If the pump turns on and off while water is not being used, you have a leak.

Water restrictions:

- In some communities where drought conditions exist, officials may recommend measures to restrict use of water.
- These recommendations may include such procedures as watering lawns and washing cars on odd or even days of the week, at night or on weekends.
- The restrictions may limit hours or prohibit use of water or require use of hand watering instead of using sprinkler systems that use much more water.
- You should check with your local authorities or water utility for information on water restrictions that may be imposed for your area.

For more information, please contact your local water authority, utility district or your local emergency management agency for information specific to your area.

[Discarding Cigarettes are Leading Cause of Unintentional Grass Fires in Drought Conditions](#)

Throwing anything burning out of a moving vehicle is illegal and can result in a fine of up to \$10,000. When tossed from a building or a moving car, cigarettes remain warm enough to quickly spark a blaze in dry grass or other vegetation.

Extreme Heat

Launching fireworks from the side of a road or off a building is also illegal. Fireworks may only be legally discharged from private property with the permission of the owner, or from public areas specifically designated for launching fireworks.

With low humidity and dry, windy conditions, small fires can quickly grow into large ones. If smoke from a nearby grass fire is inhibiting visibility on roadways, pull over and stop. Driving through these conditions is extremely dangerous as visibility can be diminished to almost zero and breathing may become difficult. Hoosiers are encouraged to report any unattended fires to 911 immediately.

Winter Hazards

Winter Hazards

What to do Before a Winter Storm

Winter storm warnings are reported by local weather forecasters and can be predicted with a reasonable degree of accuracy. Winter storms can bring a lot of snow, sleet, freezing rain, sub-zero temperatures, lots of ice and even blizzards. Preparing for winter storms can be life and property saving.

Know your terms:

- Freezing rain: Rain that freezes when it hits the ground, creating a coating of ice on roads, walkways, trees and power lines.
- Sleet: Rain that turns to ice pellets before reaching the ground. Sleet also causes moisture on roads to freeze and become slippery.
- Winter Storm Watch: A winter storm is possible in your area.
- Winter Storm Warning: A winter storm is occurring or will soon occur in your area.
- Blizzard Warning: Conditions of sustained winds or frequent gusts of up to 35 miles per hour or greater and considerable amounts of falling or blowing snow (reducing visibility) are occurring or will soon occur in your area.

Winter-storm preparation tips:

- Double check to make sure that your emergency preparedness kit is complete, with fresh supplies. For more information on emergency kits please visit www.in.gov/dhs.
- Along with your kit keep extra blankets, warm clothes and a flashlight around the house. Know where they are located in case you have to find them in a power outage.
- Stock up on extra food and water before the storm because the power may go out or you might be snowed in for a few days.
- Make sure your home is properly insulated.
- Caulk and weather strip doors and windows to keep out cold air.
- Learn how to shut off water valves if a pipe bursts.
- Keep fire extinguishers on hand and know how to use them.

Winter Hazards

- Consider what to use for emergency heat in case the electricity goes out (Fireplace, portable space heater, etc.). And remember emergency heating safety.
- If you rent, make sure you are familiar with the heating system and that it is safe to use.
- Remember to consider family members with special needs, such as babies. Keep extra prescription medicines available in case you are snowed or iced in. Don't forget your pets!
- If road conditions permit, fuel your car before the storm. It is a good idea to keep at least a half tank of gas in your car at all times during the winter months, to keep the fuel lines from freezing.
- Put extra blankets, clothes, food and water, ice scraper and a shovel in your car.

What to Do During a Winter Storm

Winter storm warnings are reported by local weather forecasters and can be predicted with a reasonable degree of accuracy. Winter storms can bring a lot of snow, sleet, freezing rain, sub-zero temperatures, lots of ice and even blizzards. Preparing for winter storms can be life and property saving.

The following are guidelines for what you should do during a winter storm.

If you are inside:

- Stay inside! Only make trips that are necessary for survival.
- Listen to your radio, television or NOAA Weather Radio for weather reports and emergency information.
- Eat regularly and drink ample fluids, but avoid caffeine and alcohol.
- Use proper safeguards when using fireplaces, space heaters, etc., to prevent accidental fires.
- When you do not have heat (i.e., a power outage) close off unneeded rooms, stuff towels under doors and cover windows.
- Maintain ventilations when using kerosene heaters to avoid build-up of toxic fumes. Refuel kerosene heaters outside and keep them at least three feet from flammable objects.
- Conserve fuel, if necessary, by keeping your residence cooler than normal.

If you are outside:

Winter Hazards

- People, pets and livestock are susceptible to frostbite and hypothermia during winter storms; signs of frostbite and hypothermia include numbness, drowsiness, shivering, stumbling, slurred speech and a pale appearance.
- Avoid overexertion when shoveling snow. Overexertion can bring on a heart attack – a major cause of death in the winter. If you must shovel snow, stretch before going outside.
- Remove wet clothing. Working up a sweat trying to dislodge a vehicle can cause hypothermia if you do not change into dry clothing.
- Cover your mouth to protect your lungs from extremely cold air.
- Wear layers of loose-fitting clothing instead of a single thick layer. Wear mittens instead of gloves.
- If you see homeless people stranded in the cold, call your local authorities so they can find a shelter for them.

What to Do During an Extreme Cold Emergency

Extreme cold consists of temperatures significantly colder than normal. Extremely cold conditions can cause a number of health and safety concerns, including frostbite, hypothermia, carbon monoxide poisoning and fires (caused by alternate heating sources). Taking preventive action is your best defense. By preparing your home and car in advance for winter emergencies and by observing safety precautions during times of extremely cold weather, you can reduce the risk of weather-related health problems.

In general, if you are experiencing extremely cold conditions you should:

Protect yourself:

- Dress in several layers of lightweight clothing, which keeps you warmer than a single heavy coat.
- Mittens provide more warmth to your hands than gloves. Wear a hat, preferably one that covers your ears. Wear a scarf over your mouth to protect your lungs.
- Wear waterproof, insulated boots to keep your feet warm and dry and to maintain your footing on ice and snow.
- Take frequent breaks and stay hydrated when digging out or shoveling snow.

Protect yourself at home:

Winter Hazards

- Be careful with candles – do not use candles for lighting if the power goes out. Use flashlights only.
- Inspect fireplaces and wood stoves yearly – use a sturdy fire screen with lit fires. Burn only wood – never burn paper or pine boughs.
- Use generators correctly – never operate a generator inside your home, including the basement or garage. Do not hook up a generator directly to your home's wiring. The safest thing to do is connect the equipment you want to power directly to the outlets on the generator.
- Prevent frozen pipes – when the weather is very cold outside, open cabinet doors to let warm air circulate around water pipes. Let the cold water drip from the faucet served by exposed pipes. Running water through the pipe – even at a trickle – helps prevent pipes from freezing because the temperature of the water running through it is above freezing. Keep the thermostat set to a consistent temperature.
- Don't overload your electrical outlets.
- Don't forget your pets – bring them indoors. If you can't bring them inside, provide adequate shelter to keep them warm and make sure they can access unfrozen water.
- If you plan on using an alternate heating source, never use a stove or oven to heat your home. Keep a glass or metal fire screen around the fireplace and never leave a fireplace fire unattended. If using a space heater, follow the manufacturer's instructions on how to safely use the heater. Place it on the, hard, nonflammable surface. Turn the space heater off when you leave the room or go to sleep. Keep children and pets away from your space heater and do not use it to dry clothing.

Understand frostbite and hypothermia:

- Symptoms of frostbite include: numbness, flushed gray, white, blue or yellow skin discoloration and waxy feeling skin. If you or someone you know is experiencing any of these symptoms, seek medical attention immediately.
- Symptoms of hypothermia for adults include: shivering, exhaustion, confusion, fumbling hands, memory loss, slurred speech and drowsiness; and for infants; bright red, cold skin and very low energy.

What to do:

Winter Hazards

- If you notice any of these signs, take the person's temperature. If it is below 95° F, the situation is an emergency – get medical attention immediately. If medical care is not available, begin warming the person, as follows:
 - Get the victim into a warm room or shelter.
 - If the victim has on any wet clothing, remove it.
 - Warm the center of the body first – chest, neck, head and groin – using an electric blanket, if available. Or use skin-to-skin contact under loose, dry layers of blankets, clothing, towels or sheets.
 - Warm beverages can help increase the body temperature, but do not give alcoholic beverages. Do not try to give beverages to an unconscious person.
 - After body temperatures have increased, keep the person dry and wrapped in a warm blanket, including the head and neck.
 - Get medical attention as soon as possible.

Winter Driving Tips

Hazardous driving conditions due to snow and ice on highways and bridges lead to many accidents, which is the leading cause of death during winter storms. By following these tips and advice, you will be ready for winter driving. The Indiana Department of Transportation and State Police remind you: “Ice and Snow, Take it Slow!”

Prepare a winter emergency kit for your vehicle. Supplies should include:

- At least two blankets or a sleeping bag
- Flashlight or battery-powered lantern and extra batteries
- Booster (jumper) cables
- Emergency flares
- Extra clothing, particularly boots, hats and mittens
- A steel shovel and rope to use as a lifeline
- Bottled water or juice and nonperishable high-energy foods (granola bars, raisins, nuts, peanut butter or cheese crackers)
- Thermos or container that won't allow liquids to freeze
- First-aid kit and necessary medications
- Sand or non-clumping cat litter for tire traction if your vehicle gets stuck in snow or ice

Winter Hazards

- A cell phone and charger which can be adapted to vehicle use
- Ice scraper and snow brush
- Tire repair kit and pump
- Candle, matches, heat sticks/packs, lighters, hand-warmers, etc. (Be sure to crack the window if you using a heat source indoors.)
- Small tent or shelter half

Driving tips:

Before leaving home:

- Find out about the driving conditions and pay attention to weather reports on the radio.
- Remove any snow on your vehicle's windows, lights, brake lights and signals.
- Check your vehicle's tires, wiper blades, fluids, lights, belts and hoses.
- Let someone know your destination, route and when you expect to arrive.
- Avoid driving and take public transportation if possible.
- Become familiar with your vehicle's winter weather operating characteristics. Front-wheel-drive vehicles generally handle better than rear-wheel vehicles on slippery roads because the weight of the engine is on the drive wheels, improving traction.

On the road:

- If you need to turn on your wipers, you need to turn on your lights.
- Remember to drive well below the posted speed limit and leave plenty of room between cars.
- Be cautious of black ice. Roads that seem dry may actually be slippery and dangerous. Take it slow when approaching intersections, off-ramps, bridges or shady areas.
- Stay attentive and reduce speeds during times of limited visibility.
- Give snowplows room to work. The plows are wide and can cross the centerline or shoulder. Do not tailgate and try not to pass.
- Give yourself space, remember it takes your car extra time to stop on slick and snowy roads
- Brake early, brake slowly, brake correctly and never "slam on the brakes." Understand your vehicles brakes and how they work.
- When driving on ice and snow, do not use cruise control and avoid abrupt steering maneuvers.
- Take it slow when merging into traffic.

Winter Hazards

- Be aware of what is going on ahead of you because actions by other vehicles will alert you to problems more quickly giving you that split-second of extra time to react safely.

What to do should you become stranded:

- Do not leave your car, it is the best protection you have.
- Keep the overhead light on when the engine is running so you can be seen (remember to keep the windows cracked).
- Tie a brightly colored cloth to the antenna for rescuers to see.
- Run the engine for 10 minutes every hour to stay warm.
- Keep the exhaust pipe free of blockage to prevent carbon monoxide poisoning.
- Don't panic! An idling car uses only one gallon of gas per hour.

Ice Safety

It is impossible to judge the strength of ice by its appearance, thickness, daily temperature or snow cover alone. Ice strength is actually dependent on a number of factors, including water depth under the ice, water area size, water chemistry, currents, and load distribution on the ice.

Some ice safety tips to remember:

- Wait to walk out on the ice until there are at least four inches of clear, solid ice. Thinner ice will support one person, but since ice thickness can vary considerably, especially at the beginning and end of the season, four inches will provide a margin of safety.
- Go out with a buddy and keep a good distance apart as you walk out. If one goes in the other can call for help, the companion can also attempt a rescue if one of you are carrying rope or other survival gear.
- Snowmobiles and ATVs need at least five inches, and cars and light trucks need at least 8-12 inches of good, clear ice.
- Wear a life jacket. Life vests or float coats provide excellent flotation and protection from hypothermia (loss of body temperature).
- Carry a pair of homemade ice picks tied together with a few yards of strong cord that can be used to pull yourself up and onto the ice if you do fall in. Be sure they have wooden handles so if you drop them they will not sink straight to the bottom.

Winter Hazards

- Avoid driving a vehicle on ice.
- Check the water access and if there are signs indicating an operating aeration system on the lake. Aerators keep areas of water open to provide oxygen for fish and the ice can be weakened many yards beyond where the ice is actually open.
- Ice skating on frozen ponds, creeks and other small bodies of water can provide hours of exercise and entertainment, but venturing onto ice of an unknown thickness can very quickly lead to a life threatening emergency. It is impossible to judge the strength of ice by its appearance, thickness, daily temperature or snow cover alone. Ice strength is dependent on a number of factors, including water depth under the ice, water area size, water chemistry, currents and load distribution on the ice. As a rule of thumb, four inches of clear, solid ice will usually provide a stable platform.
- As with other forms of winter activities, wearing several layers of non-cotton, insulating material will provide important insulation and warmth. If you fall through the ice, the layers will also help trap air and provide a small amount of flotation. Gloves and a fleece or knit wool hat are also important to insulate and protect appendages. A US Coast Guard-approved, non-inflating personal flotation device with a pair of ice rescue picks attached is also strongly suggested.
- Part of safely enjoying ice activities is the knowledge of what to do if you or someone else falls through the ice. If you hear the ice beginning to crack, you should immediately crouch or lie down with your hands in front of you. This position lowers your center of gravity, spreads out your weight and will give you more control if you end up through the ice. Shuffling your feet will reduce the stress on the ice surface as well.
- If you do fall through the ice, try to keep your head up and out of the water. Sudden submersion in very cold water causes a reflex action to gasp for air. Keeping your head up helps prevent water inhalation.
- If you do become submerged, look up to find your way back to the surface. Do NOT swim toward light spots. Those areas are sunlight being diffused by intact ice and snow. The hole you fell through will appear as the darkest spot because the light is being reflected from the surface of the water.
- Once your head is above water, move toward the ice shelf by outstretching your arms and slowly kicking your feet to bring your legs up behind you and level your body. Slowly kick and pull yourself up onto the ice shelf. If the ice gives way, continue kicking and pulling until you are completely out of the water and back on ice that can support your weight. NEVER GIVE UP.
- Once you are successfully upon the surface of the ice, do NOT stand up. Rather, slowly and gently roll

Winter Hazards

away from the hole. You can roll all the way to shore if necessary. This technique distributes your weight over a wider surface area reducing the possibility of falling back through.

- Once on shore, avoid walking or standing up. Victims need to be transported to the hospital horizontally to avoid potentially fatal complications.

Evacuating Ahead of the Storm

Decide ahead of time if you will be able to stay warm in your home without power. If you do not have a generator or a gas-powered space heater, and don't believe you will be able to insulate your home well enough to stay warm, consider evacuating now to an alternate location with loved ones, or to a public shelter before the storm hits and travel conditions become more dangerous.

Hoosiers are instructed to contact their local emergency management agency or Red Cross chapter to inquire about public shelter locations and availability before evacuating. If you do decide to evacuate to a public shelter, don't go empty handed.

If you must evacuate to a shelter, bring the following items with you:

- Bedding including blankets, sleeping bag, pillow
- Warm clothing including boots
- Medicine or other essential medical supplies
- Food and water
- Items for entertaining children: books, toys, puzzles, etc.

High Winds Pose Additional Threats

Safety tips during strong wind:

- If possible, park your vehicle in a garage.
- Close garage door and all other exterior doors and windows.
- Stay inside. Move to the lowest level of your home or to an interior room away from windows and other glass objects.
- If you are outside, stand clear of roadways or train tracks, as a gust may blow you into the path of an oncoming vehicle.
- Use handrails where available on outdoor walkways and avoid elevated areas such as roofs.

Winter Hazards

- Watch for flying debris. Tree limbs may break and street signs may come loose during strong winds.

If you are driving in high wind:

- Keep both hands on the wheel and slow down.
- Watch for objects blowing across the roadway and into your path.
- Keep a safe distance from cars in adjacent lanes as strong gusts could push a car outside its lane of travel.
- Take extra care in a high-profile vehicle such as a truck, van, SUV or when towing a trailer, as these are more prone to be pushed or even flipped by high wind gusts.
- If winds are severe enough to prevent safe driving, get onto the shoulder of the road and stop, making sure you are away from trees or other tall objects that could fall onto your vehicle. Stay in the vehicle and turn on the hazard lights until the wind subsides.

In the event of a downed power line:

- Report downed lines to your local utility company as soon as possible and call 9-1-1 if the downed power line poses an immediate safety threat.
- Avoid anything that may be touching downed lines, including vehicles or tree branches. Wet or snow-covered ground can conduct electricity. Warn others to stay away.
- Avoid anything that may be touching downed lines, including vehicles or tree branches.
- If a line falls on your car, stay inside the vehicle. Take care not to touch any part of the metal frame of your vehicle. Call 9-1-1. Do not exit the car until help arrives and advises you to do so, unless the vehicle is on fire. To exit, open the door, but do not step out. Jump, without touching any of the metal portions of the car's exterior, to safe ground and quickly get away.
- If you see someone who has been shocked and may be in direct or indirect contact with a power line, do not try to touch them. You may become a second victim. Get fire and medical attention as quickly as possible by calling 9-1-1.
- Never drive over downed power lines. Even if they are not energized, they can become entangled in your vehicle. For more information about preparing for and staying safe during severe winter storms, visit www.in.gov/dhs/getprepared.

Winter Hazards

Preparing for Power Outages

During a power outage:

- Do NOT call 9-1-1 to report a power outage. Instead, contact your utility company. Calls to 9-1-1 should be reserved for life-threatening emergencies only.
- Open all cabinet doors and leave all hot and cold water taps slightly open so they drip continuously. This will help prevent pipes from freezing.
- If the power goes out, note the time of the outage and keep refrigerator/freezer doors closed to help keep perishable food cold. Perishable foods, including meat, dairy, eggs and cooked vegetables need to be stored at or below 41 degrees Fahrenheit.
- Listen to your battery-powered radio to find out about current weather conditions and when the power might be restored.
- Unplug some of your major appliances. When the power comes back on, a power surge could harm sensitive equipment. To avoid a power surge when the electricity returns, turn off computers, TVs, stereos and other unnecessary electronic equipment at the power source.

Tips for staying safe and warm during a power outage:

- Use a fireplace, wood stoves or other combustion heaters only if they are properly vented to the outside.
- Exercise caution when heating with any alternative heating devices, as well as propane appliances and older wall or floor gas furnaces.
- Never use a charcoal or gas grill indoors—the fumes are deadly.
- Never attempt to heat your home with an oven. Carbon monoxide can build up in your home if the oven is left on for an extended period of time.
- Check that you have a working carbon monoxide detector.
- Avoid lighting your home with candles during a power outage. Never leave lit candles unattended.
- Dress to stay warm -- wear layers, including a sweater, sweatshirt or even a jacket.

Insulating your home:

- Keep garage doors, storm doors and window shutters closed.

Winter Hazards

- Close blinds and drapes or cover windows with a blanket to help prevent heat from escaping through the glass.
- Place rolled-up towels or blankets at the base of doors and windows to prevent cold air from drafting in.
- Remember that heat rises, so the highest level in your home is likely to be the warmest.

Medical conditions

Individuals who rely on electricity to operate at-home oxygen or dialysis machines or to refrigerate insulin are advised to contact their local emergency management agency as soon as possible to inquire about emergency care plans.

Individuals who rely on transportation to medical facilities for life-sustaining treatment, such as dialysis, should also contact their local emergency management agency for information about emergency transportation plans.

Contact information for all county emergency management agencies is available at http://www.in.gov/dhs/files/sanitized_compact_directory.pdf.

For more information about preparing for and staying safe during severe winter storms visit www.in.gov/dhs/getprepared.

Fire

Fire

Keep Your Home Fire Safe

Most home-heating fires involve portable heaters and space heaters, with room gas heaters and kerosene heaters accounting for the highest fatality risk. But all heating systems—including fireplaces—can be dangerous if they are not used and maintained properly.

Before buying any heating equipment, check with your local fire department to make sure what you are buying conforms to local building and fire codes. When shopping for portable or space heaters, look for automatic shut-off safety features. Install a smoke detector outside every sleeping area and on every floor in your home.

Vents and chimneys:

- All fueled heaters must be vented to prevent dangerous carbon-monoxide build-up in your home. Creosote and carbon deposits, caused by inefficient combustion in fireplaces and wood stoves, can coat chimney flues and pose a serious fire hazard.
- Have your chimney inspected and cleaned by a professional before each heating.
- Unusually high concentrations of chimney deposits could mean your fireplace or wood stove is not burning efficiently and should be inspected for safety.
- If you use a wood stove, have the flue and chimney connection inspected and cleaned regularly.
- Consider installing a spark arrester on top of any chimney that vents a solid-fuel stove or fireplace. Check with your local fire department for more instructions on installing heaters and vents.

Space heaters:

- When buying a new space heater, make sure it carries the mark of an independent testing laboratory and is legal for use in your community.
- Keep all combustible materials away from portable and space heaters.
- Place all space heaters at least three feet away from furniture, walls, curtains or anything else that is flammable.

Fire

- Plug your electric-powered space heater into an outlet with sufficient capacity and NEVER into an extension cord.
- Turn off space heaters whenever the room they are in is unoccupied or under circumstances when manufacturer's instructions say they should be turned off.
- Portable space heaters are easy to knock over in the dark, so turn them off when you go to bed.

Liquid fuel safety:

- Use the proper grade of fuel for your liquid-fueled space heater. Never use a substitute or lower-grade fuel and never use gasoline in any heater not approved for gasoline use.
- Refuel your heater outdoors in an area away from structures where spills will not present a fire hazard. Refuel only when the equipment is cool to avoid igniting fumes.

Gas-fueled heaters:

- Make sure fuel-burning equipment is vented to the outside, that the venting is kept clear and unobstructed and that the exit point is properly sealed around the vent.
- Never install unvented gas heaters in bedrooms or bathrooms. Carbon monoxide can build up to dangerous levels in any small, enclosed space.

Wood or coal stoves:

- To protect the floor under wood or coal stoves from heat and stray embers, put down approved protection or a floor protector listed with a testing lab.
- Install wood and coal stoves at least three feet away from walls and furniture, unless the stove is listed for a lesser clearance.
- Use only dry, seasoned wood in a fireplace or wood stove to avoid the build-up of creosote, an oily deposit that easily catches fire and accounts for most chimney fires and the largest share of home heating fires.
- Use only paper or kindling wood, not flammable liquid, to start the fire.
- Do not use artificial logs in wood stoves.

Fireplaces:

Fire

- Insulate chimneys and place spark arrestors on top. The chimney should extend at least three feet higher than the roof. Remove branches hanging above and around the chimney.
- When you use your fireplace, protect your home from sparks by using a fire screen made of sturdy metal or heat-tempered glass.
- Burn only seasoned wood, never rubbish, in your fireplace.
- Add wood carefully; sparks can escape into the room while the screen is open.
- Allow fireplace and woodstove ashes to cool before disposing in a metal container, a safe distance from your home and other structures.
- Be sure dampers are in working order and never leave fires unattended—especially in an area used by children or pets.

Candles:

- Never leave a burning candle unattended.
- Extinguish candles before leaving a room, leaving your home, or going to sleep. Falling asleep was a factor in 12% of home candle fires and 26% of associated deaths, according to the National Fire Protection Association.
- Keep candles at least 12 inches away from anything that can burn, including decorations, paper, wreaths and bows.
- Keep all candles, matches and lighters out of reach of children and pets.
- Make sure lit candles are not in places where they can be accidentally knocked over.
- Use sturdy, non-flammable candle holders that will collect dripping wax.
- Trim wicks to ½ inch. Long or crooked wicks can cause uneven burning and dripping.
- Do NOT use candles in bedrooms and sleeping areas.
- Do NOT use candles as a decoration on a Christmas tree.
- Use a flashlight, not a candle, for emergency lighting.
- Consider using battery-operated, flameless candles.
- Extinguish candles when they burn down to within two inches of their holder or decorations.
- Blow out a candle by holding your finger in front of the flame and blowing at it. The air will flow around your finger and extinguish the candle from both sides, preventing wax spatter.

Flammable items:

Fire

- Never use gasoline, benzene, naphtha or similar flammable liquids indoors.
- Store flammable liquids in approved containers, in well-ventilated storage areas.
- Never smoke near flammable liquids.
- Safely discard all rags, etc., that have been soaked in flammable liquids in a metal container.

Matches and smoking:

- Keep matches and lighters up high, away from children; preferably in a locked cabinet.
- Never smoke in bed or when drowsy or medicated.
- Provide smokers with deep, sturdy ashtrays.
- Douse cigarette and cigar butts with water before disposal.

Home Fires Caused by Alternative Heating

According to the National Fire Protection Association (NFPA), in 2008, heating equipment was the second leading cause of home fires in the United States. More than 66,000 reported fires caused 480 civilian deaths, 1,660 civilian injuries and more than \$1 billion in property damage.

Tips for safe alternative heating:

- According to NFPA, between 2004 and 2008, the leading factor contributing to home heating fires was failure to properly clean creosote, an oily deposit that easily catches fire, from solid-fueled heating equipment such as chimneys.
- Regular cleaning and annual inspections by a professional chimney sweep will help keep a fireplace free from obstructions and creosote.
- Among fatal home heating fires, the leading factor contributing to the ignition of the fires was heating equipment stationed too close to flammable materials.
- Keep all flammable materials, such as draperies, blankets, clothing, bedding, mattresses, upholstered furniture, etc., at least three feet away from heating equipment.
- Use only paper or kindling wood, not a flammable liquid, to start a fire.
- Use only dry, seasoned wood in a fireplace or wood stove to avoid the buildup of creosote. Do not use artificial logs in wood stoves.
- If using a gas fireplace, ensure the fireplace vents properly and that there is a functioning carbon monoxide detector in the room.
- Keep fire extinguishers on hand and know how to use them.

Fire

Space heater safety:

- When buying a new space heater, make sure it carries the mark of an independent testing laboratory and is legal for use in your community.
- Use the proper grade of fuel for your liquid-fueled space heater and never use gasoline in any heater not approved for gasoline use.
- Refuel space heaters only in a well ventilated area and when the equipment is cool.
- Plug power cords only into outlets with sufficient capacity and never into an extension cord.
- Turn off space heaters whenever the room they are in is unoccupied.
- Turn off space heaters when you go to bed each night to avoid knocking them over in the dark.

Tips for reducing heating costs:

- Make sure your home is properly insulated.
- Caulk and weather strip doors and windows to keep out cold air.
- Install a programmable thermostat and set it to lower the temperature at night and whenever the house is unoccupied.
- Keep doors and windows closed as much as possible, including overhead doors on attached garages.
- Insulate the pipes around the water heater with inexpensive, easy-to-install pipe insulation.
- Always unplug holiday lights before going to bed or leaving the house.

Disaster-related Fires

Disaster-related fires are fires create by emergency lighting or heating sources. Understanding how disaster-related fires can start and preparing to prevent those fires can save lives and property.

Home heating safety:

- Most home-heating fires involve portable heaters and space heaters; with room gas heaters and kerosene heaters accounting for the highest fatality risk. But all heating systems, including fireplaces, can be dangerous if they are not used and maintained properly.
- Before buying any heating equipment, check with your local fire department to make sure what you are buying conforms to local building and fire codes. When shopping for portable space heaters, look for automatic shut-off safety features.

Fire

- All portable heating equipment should bear the mark of an independent testing laboratory, indicating that the heater has met basic safety standards.
- Inspect all heating equipment annually and clean as necessary.

For vents and chimneys remember:

- All fueled heaters must be vented to prevent dangerous carbon-monoxide build-up in your home.
- Creosote and carbon deposits, caused by inefficient combustion in fireplaces and wood stoves, can coat chimney flues and pose a fire hazard. You should have your chimney inspected by a professional before each heating season and have it cleaned, if necessary.
- Unusually high concentrations of chimney deposits could mean your fireplace or wood stove is not burning efficiently and should be inspected for safety.
- Consider installing a spark arrestor on top of any chimney that vents a solid-fuel, such as stoves and fireplaces.
- Check with your local fire department for more instructions on installing heaters and vents.

For space heaters remember:

- Keep all combustible materials away from portable and space heaters. Place all space heaters at least three feet away from furniture, walls, curtains and anything else that burns.
- Plug your electric-powered space heater into an outlet with sufficient capacity and NEVER into an extension cord.
- Turn off space heaters whenever the room they are in is unoccupied or under other circumstances when the manufacturer's instructions say they should be turned off.
- Portable heaters are easy to knock over in the dark and should be turned off before you go to bed.
- Use the proper grade of fuel for you liquid-fueled space heater. Refuel your heater outdoors in an area away from structures where spills will not present a fire hazard. Refuel only when the equipment is cool, adding fuel to a hot heater can cause the fumes to ignite.

For fireplaces remember:

- When you use your fireplace, protect your home from sparks by using a fire screen made of sturdy metal or heat-tempered glass.

Fire

- Burn only seasoned wood—never rubbish—in your fireplace.
- Add wood carefully; sparks can escape into the room while the screen is open.
- Allow fireplace and woodstove ashes to cool before disposing in a metal container, which is kept a safe distance from your home.
- Be sure dampers are in working order, and never leave fires unattended—especially in an area used by children or pets.

Candle safety tips:

- Many times candles are used for alternate lighting as decoration around the holidays and should be used with caution.
- Never leave a burning candle unattended.
- Extinguish candles before leaving a room, leaving your home, or going to sleep.
- Keep candles at least 12 inches away from anything that can burn including decorations, paper, wreaths and bows.
- Keep all candles, matches and lighters out of reach of children and pets.
- Make sure lit candles are not in places where they can be accidentally knocked over.
- Use sturdy, non-flammable candle holders that will collect dripping wax.
- Trim wicks to ½ inch long or crooked wicks can cause uneven burning and dripping.
- Do not use candles in bedrooms or sleeping areas.
- Use a flashlight, not a candle, for emergency lighting.
- Consider using battery-operated, flameless candles.
- Extinguish candles when they burn down to within two inches of their holder or decorations.
- To avoid hot wax spatter, blow out a candle by holding your finger in front of the flame and blow at it. The air flow around your finger and extinguish the candle from both sides, preventing spatter.
- Never use a candle as a decoration on a Christmas tree.

Holiday decorating safety:

- When you bring your Christmas tree home, cut one or two inches off the bottom and place the tree in water as soon as possible.
- Remember to keep your tree base filled with water at all times. Left un-watered over time, a tree's needles can dry out and catch fire more easily.

Fire

- Keep your tree a safe distance (at least three feet) from fireplaces, radiators, space heaters, heating vents and other sources of heat.
- Make sure the tree is not blocking an exit.
- Carefully inspect each electrical decoration before plugging it in. Cracked sockets and frayed, bare or loose wires can cause serious electric shock or start a fire.
- Be sure to use light strings that bear the Underwriters Laboratories (UL) mark. The UL mark on a product means that UL has tested samples of the product for risk of fire, electric shock and other hazards.
- Do not connect more than three light string sets together. Light strings with screw-in bulbs should have a maximum of 50 bulbs connected together.
- Turn off all electrical light strings and decorations in your home before leaving home or going to bed.

Protecting Your Home Before a Wildfire

Protecting your home from wildfire is your responsibility. Listed here are several safety precautions that you can take to reduce the risk of fire losses. Some you can implement immediately, while others need to be considered at the time of construction or remodeling. You should also contact your local fire department, forestry office, emergency management office or building department for information about local fire laws, building codes and protective measures. Obtain local building codes and weed abatement ordinances for structures built near wooded areas.

When building or remodeling:

- Choose building locations wisely; canyon and slope locations increase exposure to wildfires.
- Use fire-resistant materials in the siding of your home, such as stucco, metal, brick, cement shingles, concrete and rock. You can treat wood siding with UL-approved fire retardant chemicals, but the treatment and protection are only temporary and must be repeatedly treated. The roof is especially vulnerable in a wildfire. Embers and flaming debris can travel great distances and could land on your roof; starting a new fire.
- Choose safety glass for windows and sliding glass doors. Single pane windows allow radiated heat to pass through and ignite combustible materials inside. The larger the pane of glass, the more vulnerable it is to fire. Dual or triple pane thermal glass and fire-resistant shutters or

Fire

drapes help reduce the risk. You can also install non-combustible awnings to shield windows and use shatter-resistant glazing such as tempered or wire glass.

- When designing louvers, place them in the vertical wall rather than the soffit of the overhang.
- Avoid designs that include wooden decks and patios. Any porch, balcony or overhang with exposed space underneath is fuel for an approaching fire. Overhangs ignite easily by flying embers and by the heat and fire that get trapped underneath. If vegetation is allowed to grow underneath or if the space is used for storage, the hazard is increased significantly.
- Use ½ inch mesh screen beneath porches, decks, floor areas and the home itself. Also screen openings to floors, roof and attic.
- Mark the entrance to your property with address signs that are clearly visible from the road and make sure roads are wide enough to allow firefighting equipment to get through.

Create a safety zone extending out at least 100 feet around your house. In this zone, reduce or replace as much of the most flammable vegetation as possible. If you live on a hill, you may need to extend the zone for several hundred feet to provide the desired level of safety.

Create an additional, 30-foot zone, inside the first one and immediately next to your home. Keep the volume of vegetation in this zone to a minimum. If you live on a hill, extend the zone furthest on the downhill side. Fire spreads rapidly uphill. The steeper the slope, the more open space you will need to protect your home. Swimming pools and patios can be a safety zone and stone walls can act as heat shields and deflect flames. In this zone you should also do the following:

- Remove vines from the walls of your house and any dead branches that extend over the roof.
- Clear the area of leaves, brush, evergreen cones, dead limbs and fallen trees.
- Move shrubs and other landscaping away from the sides of the house.
- Prune branches and shrubs within 15 feet of chimneys and stove pipes and ask the power company to clear branches from power lines and install electrical lines underground.
- Remove tree limbs within 15 feet of the ground and thin a 15-foot space between tree crowns.
- Replace highly flammable vegetation such as pine, eucalyptus, junipers and fir trees with lower growing, less flammable species such as hardwood trees. Ask your local fire department or garden store for additional suggestions.
- Cut the lawn often, keeping the grass at a maximum of two inches. Watch grass and other vegetation near the driveway, a source of ignition from automobile exhaust systems.

Fire

Clear all combustibles within 30 feet of any structure:

- Clear gutters and roof of leaves and debris.
- Avoid using bark and wood chip mulch.
- Stack firewood 100 feet away from any uphill structure.
- Store combustible or flammable materials in approved safety containers and away from the house.
- Keep the gas grill and propane tank at least 15 feet from any structure. Clear an area 15 feet around the grill. Place a ¼ inch mesh screen over the grill. Always use the grill cautiously but refrain from using it during dry weather when the risk of wildfire is greater.
- Place stove, fireplace and grill ashes in a metal bucket, soak in water for two days and then bury the cold ashes in mineral soil.
- Store gasoline, oily rags and other flammable materials in approved safety cans and place them in a safe location away from the base of buildings.
- Inspect chimneys at least twice a year. Clean them at least once a year. Keep dampers in good working order. Equip chimneys and stove pipes with a spark arrester that meets the requirements of National Fire Protection Association Code 211. Contact your local fire department for exact specifications. Chimneys should extend at least three feet above the roof.
- Any attic vent, soffit vent, louver or other opening can allow embers and flaming debris to enter a home and ignite it. Cover all openings with ¼ inch or smaller corrosion-resistant wire mesh.
- Clear leaves, trash and other combustible materials out from underneath sun decks and porches.
- Extend ½ inch mesh screen from all overhangs down to the ground and enclose wooden stilts with non-combustible material such as concrete, brick, rock, stucco or metal.
- Use non-combustible patio furniture and covers.

Plan for water and other needs:

- Install a smoke detector on each level of your home, especially near bedrooms. Test monthly and change the batteries at least once a year.
- Teach each family member how to use the fire extinguisher (A-B-C type) and where it is kept.
- Keep a ladder that will reach the roof.

Fire

- Keep household items for use as fire tools: a rake, axe, handsaw, or chainsaw, bucket and shovel.
- Identify and maintain an adequate outside water source such as a small pond, cistern, well, swimming pool or hydrant.
- Have a long garden hose able to reach any area of the home and other structures on the property.
- Install freeze-proof exterior water outlets on at least two sides of the home and near other structures on the property. Install these additional outlets at least 50 feet from the home.
- Consider obtaining a portable gasoline-powered pump in case electrical power is cut off.

What to Do Before a Wildfire

For people living near wild land areas or using recreational facilities in wilderness areas, the threat of wildfires is real. Learn about the history of wildfire in your area and be aware of recent weather activity. A long period without rain increases the risk of wildfire. Wildfires often begin unnoticed and spread quickly, igniting brush, trees and homes. Reduce your risk by preparing now before a wildfire approaches. Meet with your family and decide what to do and where to go if wildfires threaten your area.

When a wildfire threatens, you will not have time to shop or search for supplies. Assemble a Disaster Supplies Kit with items you may need if you are advised to evacuate. Store these supplies in sturdy, easy-to-carry containers such as backpacks or duffle bags. Remember special items such as formula and medication for infants and elderly persons.

Create a family disaster plan. Wildfire and other types of man-made and natural disasters can strike quickly and with very little or no warning. You can cope with emergencies by preparing in advance and working together:

- Post emergency numbers by every telephone.
- Show responsible family members how and when to shut off water, gas and electricity at the main switches. Remember, if the gas is turned off, it must be turned back on by a professional.
- Contact your local fire department to learn about home fire hazards.
- Contact your local American Red Cross chapter for first aid and CPR information and training.

Follow local burning laws:

Fire

- Make sure you notify local authorities before burning debris in a wooded area.
- If required, obtain a burning permit.
- Use an approved incinerator with a safety lid or covering with holes no larger than ¾ inch.
- Create at least a 10-foot clearing around the incinerator before burning debris.
- Have a fire extinguisher or garden hose on hand.

What to Do During a Wildfire

For people living near wild land areas or using recreational facilities in wilderness areas, the threat of wildfires is real. Learn about the history of wildfire in your area, and be aware of recent weather activity. A long period without rain increases the risk of wildfire. Wildfires often begin unnoticed and spread quickly, igniting brush, trees and homes.

If you see a wildfire, call 9-1-1 immediately. NEVER assume that someone else has already called. Describe the location of the fire, speak slowly and clearly and answer any questions asked by the dispatcher.

If you are advised to evacuate, do so immediately.

- Evacuate immediately if you are told to do so.
- If you suspect that danger is imminent, you should evacuate without waiting for an official order.
- Wear protective clothing such as sturdy shoes, cotton or woolen clothing, long pants, long-sleeved shirt, gloves and a handkerchief to protect your face.
- Take your Disaster Supplies Kit.
- Watch for changes in the speed and direction of the fire and smoke and choose a route away from the fire hazard.
- Advise someone outside the threatened area of your departure and intended destination.

If you are warned that a wildfire is threatening your area, but not advised to evacuate yet, and you are confident you have time, you should take the following protective measures:

- Prepare to evacuate by backing your car into the garage or park it in an open space facing the direction of escape. Shut doors and roll up windows, but leave the key in the ignition. Close garage windows and doors, but leave them unlocked.

Fire

- Place valuable papers, mementos and anything “you can’t live without” inside the car in the garage. Pets should also be put in the car.
- Disconnect any automatic garage door openers so that doors can still be opened by hand if the power goes out.
- Listen to your battery-operated radio for reports and evacuation information.
- Follow the instructions of local officials.
- Arrange temporary housing at a friend or relative’s home outside the threatened area.
- If you must evacuate, do NOT lock up. Leave doors and windows closed but unlocked. It may be necessary for firefighters to gain quick entry into your home to fight fire. The entire area will be isolated and patrolled by sheriff’s deputies or police.

Inside:

- Close windows, vents, doors, venetian blinds and non-combustible window coverings and heavy drapes. Remove lightweight curtains.
- Seal attic and ground vents with pre-cut plywood or commercial seals.
- Shut off gas at the meter.
- Turn off pilot lights.
- Open fireplace damper and close fireplace screens.
- Move flammable furniture into the center of the home away from windows and sliding-glass doors.
- Turn on a light in each room to increase the visibility of your home in heavy smoke.

Outside:

- Seal attic and ground vents with pre-cut plywood or commercial seals.
- Turn off propane tanks.
- Set up the portable gasoline-powered pump.
- Place lawn sprinklers on the roof and near above-ground fuel tanks. Wet the roof.
- Wet or remove shrubs within 15 feet of the home.
- Connect garden hoses and fill any pools, hot tubs, garbage cans, tubs or other large containers with water.
- Gather fire tools and place a ladder against the house in clear view.

Fire

- If you become trapped by a wildfire DO NOT RUN! Survival in a home or vehicle is dangerous, but possible. You will not be able to outrun a wildfire.
- Stay calm, and DO NOT RUN.
- If at home, go inside. The fire line will pass before your house burns down. Once it is past, then get out immediately.
- If you are in a vehicle, roll up the windows and close air vents. Drive slowly with headlights on. Watch for other vehicles and pedestrians. Do not drive through heavy smoke.
- If you have to stop, park away from the heaviest trees and brush. Turn headlights on and the ignition OFF.
- Get on the floor and cover up with a blanket or coat.
- The engine may stall and not restart. Air currents may rock the car. Some smoke and sparks may enter the vehicle. The temperature inside the vehicle will rise, but metal gas tanks and containers rarely explode.
- Stay in the vehicle until the fire passes.

If you are caught in the open the best temporary shelter is in a sparse fuel area.

- On a steep mountainside, the back side is safer. Remember that fire travels faster uphill.
- Avoid canyons, natural “chimneys” and saddles.
- If a road is nearby, lie face down along the road cut or in the ditch on the uphill side. Cover yourself with anything that will shield you from the fire’s heat.
- If hiking in the back country, seek a depression with sparse fuel. Clear fuel away from the area while the fire is approaching and then lie face down in the depression and cover yourself. Stay down until after the fire passes.

After a wildfire passes:

- Wait until you are advised that it is safe to return home before you do so.
- Once home, check the roof immediately. Put out any sparks or embers. Check the attic for hidden burning sparks.
- If you have a fire, call the fire department or ask your neighbors to help fight it.
- If the power is out, try connecting a hose to the outlet on your water heater.
- For several hours after the fire, maintain a “fire watch.” Re-check for smoke and sparks throughout the house.

Fire

Surviving a Fire

Each year, more than 4,000 Americans die and more than 25,000 are injured in fires, many of which could be prevented. Direct property loss due to fires is estimated at \$8.6 billion annually.

Fire spreads quickly; there is no time to gather valuables or make a phone call. In just two minutes, a fire can become life-threatening. In five minutes, a residence can be engulfed in flames.

Heat and smoke from fire can be more dangerous than the flames. Inhaling the super-hot air can sear your lungs. Fire produces poisonous gases that make you disoriented and drowsy. Instead of being awakened by a fire, you may fall into a deeper sleep. Asphyxiation is the leading cause of fire deaths, exceeding burns by a three-to-one ratio.

Smoke alarms:

- Install smoke alarms. Properly working smoke alarms decrease your chances of dying in a fire by half.
- Place smoke alarms on every level of your residence. Place them outside bedrooms on the ceiling or high on the wall (4 to 12 inches from ceiling), at the top of open stairways or at the bottom of enclosed stairs and near (but not in) the kitchen.
- Test and clean smoke alarms once a month and replace batteries at least once a year. Replace smoke alarms once every 10 years.

Escaping the fire:

- Review escape routes with your family. Practice escaping from each room.
- Make sure windows are not nailed or painted shut. Make sure security gratings on windows have a fire safety opening feature so they can be easily opened from the inside.
- Consider escape ladders if your residence has more than one level, and ensure that burglar bars and other antitheft mechanisms that block outside window entry are easily opened from the inside.
- Teach family members to stay low to the floor (where the air is safer in a fire) when escaping from a fire.
- Clean out storage areas. Do not let trash, such as old newspapers and magazines, accumulate.

Fire

Flammable items:

- Never use gasoline, benzene, naphtha or similar flammable liquids indoors.
- Store flammable liquids in approved containers in well-ventilated storage areas.
- Never smoke near flammable liquids.
- Discard all rags or materials that have been soaked in flammable liquids after you have used them. Safely discard them outdoors in a metal container.
- Insulate chimneys and place spark arresters on top. The chimney should extend at least three feet above than the roof. Remove branches hanging above and around the chimney.

Heating sources:

- Be careful when using alternative heating sources.
- Check with your local fire department on the legality of using kerosene heaters in your community. Be sure to fill kerosene heaters outside, and only after they have cooled.
- Place heaters at least three feet away from flammable materials. Make sure the floor and nearby walls are properly insulated.
- Uses only the type of fuel designated for your unit and follow all the manufacturer's instructions.
- Store ashes in a metal container outside and away from your residence.
- Keep open flames away from walls, furniture, drapery and flammable items.
- Keep a screen in front of the fireplace.
- Have heating units inspected and cleaned annually by a certified specialist.

Matches and smoking:

- Keep matches and lighters up high, away from children, preferably in a locked cabinet.
- Never smoke in bed or when drowsy or medicated.
- Provide smokers with deep, sturdy ashtrays.
- Douse cigarette and cigar butts with water before disposal.

Electrical wiring:

- Have the electrical wiring in your residence checked by an electrician.

Fire

- Inspect extension cords for frayed or exposed wires or loose plugs.
- Make sure outlets have cover plates and no exposed wiring.
- Make sure wiring does not run under rugs, over nails or across high-traffic areas.
- Do not overload extension cords or outlets. If you need to plug in two or three appliances, get an Underwriter Laboratories (UL) approved unit with built-in circuit breakers to prevent sparks and short circuits.
- Make sure insulation does not touch bare electrical wiring.

Other:

- Sleep with your door closed.
- Install A-B-C-type fire extinguishers in your residence and teach family members how to use them.
- Consider installing an automatic fire sprinkler system in your residence.
- Ask your local fire department to inspect your home for fire hazards.

What to do during a fire:

If your clothes catch on fire, you should:

- Stop, drop, and roll - until the fire is extinguished. Running only makes the fire burn faster.

To escape a fire, you should:

- Check closed doors for heat before you open them. If you are escaping through a closed door, use the back of your hand to feel the top of the door, the doorknob and the crack between the door and door frame before you open it. Never use the palm of your hand or fingers to test for heat - burning those areas could impair your ability to escape a fire (i.e., ladders and crawling).
- Crawl low under any smoke to your exit - heavy smoke and poisonous gases collect along the ceiling first.
- Close doors behind you as you escape to delay the spread of the fire.
- Stay out once you are safely out. Do not re-enter. Call 9-1-1.

Fire

Smoke Hazard

Smoke from house fires and wildfire is a mixture of gases and fine particles from burning trees and/or other biological and synthetic materials. Smoke can hurt your eyes, irritate your respiratory system and worsen chronic heart and lung conditions.

Know whether you are at increased risk:

- If you have a heart or lung disease, such as congestive heart failure, angina, COPD, emphysema or asthma, you are more at risk to experience adverse effects than healthy people.
- Older adults are more likely to be affected by smoke, possibly because they are more likely to have heart or lung diseases than younger people.
- Children are more likely to be affected by health threats from smoke because their airways are still developing and because they breathe more air per pound of body weight than adults.
- However, when smoke levels are high enough, even healthy people may experience some of these symptoms.

Hot door	Cool door
Do not open. Escape through a window. If you cannot escape, hang a white or light-colored sheet outside the window, alerting firefighters to your presence.	Open slowly and ensure fire and/or smoke is not blocking your escape route. If your escape route is blocked, shut the door immediately and use an alternate escape route, such as a window. If clear, leave immediately through the door and close it behind you. Be prepared to crawl. Smoke and heat rise. The air is clearer and cooler near the floor.

Smoke can cause:

- Coughing
- A scratchy throat
- Irritated sinuses
- Shortness of breath

Fire

- Chest pain
- Rapid heartbeat
- Headaches
- Stinging eyes
- A runny nose
- Asthma exacerbations
- Fatigue

Smoke may worsen symptoms for people who have pre-existing respiratory or heart conditions, such as respiratory allergies, asthma or chronic obstructive pulmonary disease (COPD), in the following ways:

- Inability to breathe normally
- Cough with or without mucus
- Chest discomfort
- Wheezing and shortness of breath

Protect yourself by limiting your exposure to smoke and following these ways to protect your health:

- Pay attention to local air quality reports and public health messages detailing additional safety measures. Listen and watch for news or health warnings about smoke. Find out if your community provides reports about the Environmental Protection Agency's Air Quality Index (AQI).
- Refer to visibility guides if they are available. Not every community has a monitor that measures the amount of particles in the air. In the western part of the United States, some communities have guidelines to help people estimate AQI based on how far they can see.
- If you are advised to stay indoors, keep indoor air as clean as possible. Keep windows and doors closed. Run an air conditioner if you have one, but keep the fresh-air intake closed and the filter clean to prevent outdoor smoke from getting inside. If you do not have an air conditioner and it is too warm to stay inside with the windows closed, seek shelter elsewhere.
- Do not add to indoor pollution. When smoke levels are high, do not use anything that burns, such as candles, fireplaces or gas stoves. Do not vacuum, because vacuuming stirs up particles already inside your home. Do not smoke, because smoking puts even more pollution into the air.

Fire

- Follow your doctor's advice about medicines and about your respiratory management plan if you have asthma or another lung disease, Call your doctor if your symptoms worsen.
- Do not rely on dust masks for protection. Paper "comfort" or "dust" masks commonly found at hardware stores are designed to trap large particles, such as sawdust. These masks will not protect your lungs from smoke. A properly worn “N95” mask will offer some protection.

What to Do After a Fire

Immediately after:

- Have injuries treated by a medical professional. Wash small wounds with soap and water. To help prevent infection of small wounds, use bandages and replace them if they become soiled, damaged or waterlogged.
- Remain calm. Pace yourself. You may find yourself in the position of taking charge of other people. Listen carefully to what people are telling you, and deal with life threatening situations first.
- Check with the fire department to make sure your residence is safe to enter. Do not cut or walk past colored tape that was placed over doors or windows to mark damaged areas unless local authorities advise that it is safe to do so. If a building inspector has placed a color-coded sign on the home, do not enter it until you get more information, advice and instructions about what the sign means and whether it is safe to enter your home.

Contact your local disaster relief service, such as the American Red Cross or the Salvation Army, to help with your immediate needs, such as temporary housing, food, medicine, eyeglasses, clothing and other essential items.

Recovering emotionally:

- Your own and your family's emotional care and recovery are just as important as rebuilding your home and healing physical injuries.
- You may be surprised at how you and others may feel after a disaster. Disasters can stir up many different feelings and thoughts. People may experience fear concerning their safety or that of a loved one, shock, disbelief, grief, anger and guilt. Memory problems, anxiety and/or depression are also possible after experiencing a disaster.

Fire

- Disasters are upsetting experiences for everyone involved. Children, senior citizens, people with disabilities and people for whom English is not their first language are especially at risk. Children may become afraid and some elderly people may seem disoriented at first. People with disabilities may require additional assistance. It is important to let children and elderly people know that they are safe and that you will help them find a safe place to stay.
- It is also important that you try to talk with them in a calm way. When disaster strikes, a child's view of the world as a safe and predictable place is temporarily lost. Children become afraid that the event will happen again and that they or their family may be injured or killed. The damage, injuries and deaths that can result from an unexpected or uncontrollable event are difficult for most children to understand. How a parent or other adult reacts to a child following any traumatic event can help children recover more quickly and more completely. Children of different ages react in different ways to trauma. Your local Red Cross can provide a variety of materials to help children cope with disaster.

Some basic steps you can take to meet physical and emotional needs:

- Try to return to as many of your personal and family routines as possible.
- Get rest and drink plenty of water.
- Limit your exposure to the sights and sounds of disaster, especially on television, the radio and in the newspapers.
- Focus on the positive.
- Recognize your own feelings.
- Reach out and accept help from others.
- Do something you enjoy. Do something as a family that you have all enjoyed in the past.
- Stay connected with your family and/or other support systems.
- Realize that recovery can take time.
- If you have more questions or observe unusual behavior in your children, who you think may be caused by a reaction to the disaster, contact your local Red Cross chapter, child's counselor or community professional for additional information and help.
- The Red Cross can also arrange for you to talk with a member of its disaster staff who has special expertise in dealing with disaster stress.

Helping pets:

Fire

- If you have pets, try to find and comfort them. A scared animal may react by biting or scratching, so handle animals carefully and calmly.
- Pets can become upset and react in unusual ways, such as spraying urine, defecating on floors or scratching/biting furnishings. Since pets will need regular care and attention to help them calm down, try to leave pets with a family member, friend, veterinarian or boarding facility while you are cleaning up your home. Animals are naturally inquisitive and could be injured if they are brought back to a damaged home.
- Use toys, a blanket or favorite human's unsoiled clothing to comfort pets.
- Make sure pets are fed their usual diet and have plenty of water.
- Visit your pets regularly, speak calmly and take some time out to play with them. Doing so can also help you in your recovery.

After a wildfire passes:

- Wait until you are advised that it is safe to return home before you do so.
- Once home, check the roof immediately. Put out any sparks or embers. Check the attic for hidden burning sparks.
- If you have a fire, call the fire department or ask your neighbors to help fight it.
- If the power is out, try connecting a hose to the outlet on your water heater.
- For several hours after the fire, maintain a “fire watch.” Re-check for smoke and sparks throughout the house.

Checking your home:

- Check with the fire department to make sure your residence is safe to enter. Do not cut or walk past colored tape that was placed over doors or windows to mark damaged areas unless local authorities advise that it is safe to do so. If a building inspector has placed a color-coded sign on the home, do not enter it until you get more information, advice and instructions about what the sign means and whether it is safe to enter your home.
- If you have children, leave them with a relative or friend while you conduct your first inspection of your home after the fire. The site may be unsafe for children, and seeing the damage firsthand may upset them and cause long-term effects, including nightmares.

Fire

Checking for structural damage:

- Check the outside of your home before you enter. Look for loose power lines, broken or damaged gas lines, foundation cracks and other damage. See if porch roofs and overhangs still have all their supports. If you see damage on the outside, it could indicate that the inside of your home is seriously unsafe. Ask a building inspector or contractor to check the structure before you enter.
- If there is no significant visible outside damage, then check inside. Carefully open the door. If it is jammed, do not force it open. It may be providing support to the structure of your home. If you force open the door, it may cause parts of your home to collapse or become more damaged. Find another way to enter. Those who do enter their damaged homes should wear long pants, a long-sleeved shirt, closed-toed rubber-soled shoes or boots and work gloves. Depending on the situation, dust masks, safety glasses (or goggles) and/or a hard hat and other safety equipment may be needed. Many people are injured after disasters during clean-up. The last thing that you want to do is add injuries to the list of things to take care of after a disaster.
- Smell or sniff for gas. If you detect the odor of natural or propane gas or hear a hissing noise, leave the property immediately and get well away from it. Call the fire department using a cellular telephone or a neighbor's phone. If the fire department instructs you to do so, turn off the gas with the proper tool at the valve on the outside meter. When natural gas is turned off at the main valve, it must be turned back on by a professional to ensure that the proper sequence is followed to restore gas service and prevent possible gas leaks, fires or an explosion.
- If you have a propane tank system, turn off all valves and contact a propane supplier to check out the system before you use it again.
- Throughout your first day back, check for smoke and embers throughout the home, including the attic.
- Beware of animals, such as rodents, snakes, spiders and insects that may have entered your home. As you inspect your home, tap loudly and often on the floor with a stick to give notice that you are there. Animals (including snakes) do not want encounters with humans, and will move away if you make your presence known.
- Objects, such as furnishings or building parts that have been damaged, may be unstable. Be very cautious when moving near them. Avoid holding, pushing or leaning against damaged building parts.
- Check the ceiling for signs of sagging. Water from fire hoses or rain may wet plaster or wallboard. Wet plaster or wallboard is very heavy and dangerous if it falls. Since damaged plaster or wallboard will

Fire

have to be replaced anyway, you can try to knock it down but do so carefully. Wear protective clothing, including eye protection and a hard hat. Use a long stick and stand well away from the damaged area. If the ceiling is sagging from the weight of water, poke holes in the ceiling starting from the outside of the bulge to let water drain out slowly. Take your time and knock away small chunks at a time. Striking the center of the damaged area first may cause the ceiling to collapse.

- Check the floor for signs of sagging. Again, flooring such as plywood that was damaged by water from fire hoses could collapse under human weight. Avoid walking on sagging floors. If small sections of floors are sagging, place thick plywood panels or thick, strong boards on the floor to cover the damaged area. Be sure the wood extends at least 8–12 inches on each side of the sagging area.
- If it is dry out, open windows and doors to ventilate and dry your home.
- If power is out, use a flashlight to inspect for damage and for as long as the power remains out. Do not use any open flame, including candles, to inspect for damage or serve as alternate lighting.
- Disconnect and check all appliances for water damage before using them.
- Make temporary repairs such as covering holes, bracing walls and removing debris. Save all receipts (See financial section.).
- Take photographs of the damage. You may need these to substantiate insurance claims later.

Checking utilities and major systems:

Telephones:

- Check each telephone to see if it is still on the hook. Hang up any phones that may have been knocked off. Wait a few minutes, and then pick up one phone to listen for a dial tone to know whether you have working telephone service.
- If you do not have a dial tone, try unplugging all the telephones. Plug in one at a time and listen for dial tone. This will help you determine if the telephone instrument is broken or the phone service is completely out. If it is, contact the telephone company to report the problem and request repair.

Electrical systems:

- If you see sparks, broken or frayed wires or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker.

Fire

- If there is a pool of water on the floor between you and the fuse box or circuit breaker panel, use a dry wooden stick to turn off the main fuse or breaker, but do not step or stand in the water. If you cannot reach the fuse box or breaker panel, call a qualified electrician for assistance.
- Inspect the panel box for any breakers that may have tripped. A tripped breaker may indicate damaged wiring inside your home. Do not turn on breakers that tripped; instead, turn tripped breakers to the “off” position and mark them with a piece of tape to indicate which ones were tripped when you found them. Have a qualified electrician determine if there are hidden internal electrical problems and fix them.
- Turn off all other circuit breakers except the one marked “main” and the breakers for the room(s) in which you will be working. When the power is restored, turn breakers back on, one at a time, for each room as you get to it during the recovery/restoration process.
- Use a flashlight to inspect each fuse to see if it is still in working order. Replace each broken fuse with a fuse of exactly the same amperage rating. Do not use fuses of lower or higher ratings as replacements.

Climate control systems:

- If you have a heating oil tank system, turn off all valves and contact a professional specializing in maintenance of such equipment before using it again.

Plumbing:

- If you suspect sewage lines are damaged, avoid using sinks, showers or toilets and call a plumber.
- If water pipes are damaged, turn off the water at the main valve. Call a plumber for assistance.

Checking household items:

- Normal household items, such as cleaning products, can cause toxic fumes and other hazards if they mix. If you smell a noxious odor, or your eyes water from fumes of mixed chemicals, open a window and get out of your home. Call for professional help.
- If there are spilled chemicals that do not pose a health risk, be sure to put on rubber gloves in addition to other protective clothing. Clean up spills carefully. Discard spilled chemicals and rags used for cleaning according to the advice of local authorities.

Fire

- Throw away food, beverages and medicine exposed to heat, smoke or soot. Food that was in the freezer can be used if it still has ice crystals on it. If not, discard it.

When making repairs:

- Carefully follow the instructions provided with tools and equipment (such as power tools) to maintain personal safety at all times. Wear personal protective equipment—including goggles, gloves, long sleeves and long pants—whenever you are operating power equipment. Keep children away from power equipment.
- Damaged locks (especially iron locks) should be taken apart and wiped with oil. If locks cannot be removed, squirt machine oil through a bolt opening or keyhole, and work the knob to distribute the oil. Hinges should also be thoroughly cleaned and oiled.

Cleaning up and removing smoke odor:

- There are some products available for reducing odors in fabrics. These products will list these properties on the label. A product with tri-sodium phosphate (TSP) is a common cleaning agent. It can be purchased under the generic name TSP. It is a caustic substance and should be used with care. Use and store it out of reach of children and pets. Read the label for further information and safety instructions. Any product that is not clearly described as suitable for use on personal clothing or fabrics that come in contact with skin should never be used for the removal of smoke odors from clothing.
- Test garments before using any treatment, and follow the manufacturer's instructions. Smoke odor and soot can sometimes be washed from clothing that can be bleached with 4 to 6 tbsp. TSP, 1 cup household cleaner or chlorine bleach, to every gallon of warm water. Mix well, add clothes and rinse with clear water. Dry thoroughly. Alternatively, consider washing clothes in cold water with your usual household laundry detergent and adding one tablespoon of pure vanilla extract. This solution also has been shown to remove smoke odors on kitchen surfaces and washable furniture. To remove soot and smoke from walls, furniture and floors, use a mild soap or detergent or mix together 4 to 6 tbsp. TSP and 1 cup household cleaner or chlorine bleach to every gallon of warm water. Wear rubber gloves when cleaning with this solution. Be sure to rinse your walls and furniture with clear, warm water and dry thoroughly after washing them with this.

Fire

- Pots, pans, flatware, etc., should be washed with soapy water, rinsed and then polished with a fine-powdered cleaner. You can polish copper and brass with salt sprinkled on a piece of lemon or salt sprinkled on a cloth saturated with vinegar.
- Wipe leather goods with a damp cloth, then a dry cloth. Stuff purses and shoes with newspaper to retain shape. Leave suitcases open. Leather goods should be dried away from heat and sun. When leather goods are dry, clean with saddle soap. Rinse leather and suede jackets in cold water and dry away from heat and sun.
- Washable wallpaper can be cleansed like painted walls, but do not wet through the paper. Work from bottom to top to prevent streaking. Use a commercial paste to replace any loose edges or sections. Wash a small area of the walls at a time, working from the floor up. Then rinse the wall with clear water immediately. Ceilings should be washed last. Do not repaint until walls and ceilings are completely dry. Reduce the chances of growth of mold and mildew by wiping down all surfaces that had gotten wet with a solution of one cup of liquid household bleach to a gallon of water. Test painted, textured or wallpapered surfaces to ensure that the bleach solution will not discolor these surfaces. To conduct this test, wipe a small area of the surface with the bleach solution, and allow it to dry at least 24 hours.
- Consult a professional about replacing drywall and insulation that has been soaked by water from fire hoses. Water-damaged drywall and insulation must be replaced. It cannot be dried out and maintain structural integrity or resistance to mold and mildew.

Recovering financially:

- Contact your insurance agent, broker or insurance company as soon as you can to report how, when and where the damage occurred. Provide a general description of the damage.
 - Prepare a list of damaged or lost items and provide receipts if possible. Consider photographing or videotaping the damage where it occurred for further documentation to support your claim.
 - If possible, keep damaged items or portions of those items until the claims adjuster has visited your home. Do not throw away anything you plan to claim without discussing it with your adjuster first.
 - Keep receipts for all additional expenses that you may incur such as lodging, repairs or other supplies.
 - Make copies of all documents and pictures given to your claims adjuster or insurance company.
- Besides insurance, there are many questions related to taxes, expenses and determining just how you

Fire

will recover from a personal financial point of view. For helpful advice, please see Disaster Recovery: A Guide to Financial Issues (A5076), which is available from [your local Red Cross chapter](#) and at www.redcross.org.

Rebuilding:

- Make sure that the contractor rebuilding your home obtains a building permit and follows the current building, fire and electrical codes for your area. Ask a professional about having automatic residential fire sprinklers installed during the reconstruction process. It is much less expensive to have sprinklers installed during reconstruction instead of after the construction is complete.
- Make sure that smoke alarms are installed following your local fire protection codes. We recommend having smoke alarms installed inside each sleeping room, hallway outside sleeping areas and at least one on every floor of your home. The smoke alarms should be interconnected so that if one alarm sounds, all will sound. The alarms should be operated by both household power and batteries in case the household power is out (New fire codes require this type of smoke alarm to be installed. Check with local authorities about the prevailing fire code in your area.).
- It is a good idea to make sure that you have updated your Family Disaster Plan and replenished essential disaster supplies just in case a disaster happens again. You will always feel better knowing that you are prepared and ready for anything.
- Consider purchasing homeowner's or renter's insurance.
- Make copies of important documents, such as birth and marriage certificates and insurance policies, and store these in a safe place.

Smoke Alarms and Fire Extinguishers

Properly installed and maintained smoke alarms provide an early warning to your household and can save your life and the lives of your loved ones.

There are two basic types of smoke detectors:

- Ionization alarms sound more quickly when flaming, fast moving fire occurs.
- Photoelectric alarms are quicker at sensing smoldering, smoky fires.
- Combination smoke alarms that combine both types are available and preferred for home safety.

Fire

- Special smoke alarms are made to assist those with hearing disabilities often times using strobe lights and/or vibrate assistance.
- Smoke alarms can be purchased at your local hardware, home supply or general merchandise stores. Some fire departments offer smoke alarms for little or no cost.

What you need to know about smoke alarms:

Installing smoke alarms:

- Smoke alarms should be installed on every level of your home and near sleeping areas.
- When installing smoke alarms, always follow the manufacturer's installation instructions.
- Alarms that are hard wired need to be installed by a qualified electrician.
- If you need assistance with installing a smoke alarm, call your local fire department's non-emergency phone number. Many fire departments will install smoke alarms for you.

Maintenance:

- Smoke alarms should be tested every month. This is a good time to practice your escape plans!
- Batteries should be changed once a year and replaced every 8-10 years.

Fire extinguishers:

When used properly fire extinguishers can be life- and property-saving.

Types of fire extinguishers:

- Class A will put out fires in ordinary combustibles: cloth, wood, rubber, paper and many plastics.
- Class B extinguishers are to be used on fires involving flammable liquids, such as grease, gasoline, oil and oil-based paints.
- Class C extinguishers are suitable for use on electrically energized fires (i.e., fires involving appliances, tools or other equipment that is plugged in).

PASS the test in using your extinguisher:

Fire

- Pull the pin at the top of the extinguisher that keeps the handle from being accidentally pressed.
- Aim the nozzle toward the base of the fire, standing approximately eight feet away from the fire.
- Squeeze the handle to discharge the extinguisher and release the handle to stop.
- Sweep the nozzle back and forth at the base of the fire.

Use a fire extinguisher ONLY if:

- You have alerted other occupants and someone has called the fire department.
- The fire is small and contained to a single object, such as a wastebasket.
- You are safe from the toxic smoke produced by the fire.
- You have a means of escape identified and the fire is not between you and the escape route.
- Your instincts tell you that it is safe to use an extinguisher.
- Only use an extinguisher if ALL above conditions are met! When in doubt, just get out.

Treating Burns

While most victims of fires die from smoke or toxic gases, not from burns, what you do to treat a burn in the first few minutes after it occurs can make a huge difference in the severity of the injury.

Immediate treatment for burn victims:

1. “Stop, drop and roll” to smother flames.
2. Remove all burned clothing. If clothing adheres to the skin, cut or tear around burned areas.
3. Remove all jewelry, belts, tight clothing, etc., from over the burned areas and from around the victim’s neck. This is very important; burned areas swell immediately.
4. NEVER apply butter or other oily substances to a burn. They trap heat and make the burn worse.

First-degree burns involve the top layer of skin. Sunburn is a first-degree burn:

Signs:

- Red
- Painful to touch
- Skin will show mild swelling

Fire

Treatment:

- Apply cool, wet compresses or immerse in cool, fresh water. Continue until pain subsides.
- Cover the burn with a sterile, non-adhesive bandage or clean cloth.
- Do not apply ointments or butter to burn; these may cause infection.
- Over-the-counter pain medications may be used to help relieve pain and reduce inflammation.
- First-degree burns usually heal without further treatment. However, if a first-degree burn covers a large area of the body or the victim is an infant or elderly, seek emergency medical attention.

Second-degree burns involve the first two layers of skin.

Signs:

- Deep reddening of the skin
- Pain
- Blisters
- Glossy appearance from leaking fluid
- Possible loss of some skin

Treatment:

- Immerse in fresh, cool water, or apply cool compresses. Continue for 10 to 15 minutes.
- Dry with clean cloth and cover with sterile gauze.
- Do not break blisters.
- Do NOT apply ointments or butter to burns; these may cause infection.
- Elevate burned arms or legs.
- Take steps to prevent shock: lay the victim flat, elevate the feet about 12 inches and cover the victim with a coat or blanket. Do not place the victim in the shock position if a head, neck, back or leg injury is suspected, or if it makes the victim uncomfortable.
- Further medical treatment is required. Do not attempt to treat serious burns unless you are a trained health professional.

Third-degree burns penetrate the entire thickness of the skin and permanently destroy tissue.

Fire

Signs:

- Loss of skin layers.
- Often painless as nerve endings have been destroyed (Pain may be caused by patches of first- and second-degree burns which often surround third-degree burns.).
- Skin is dry and leathery.
- Skin may appear charred or have patches which appear white, brown or black.

Treatment:

- Cover burn lightly with sterile gauze or clean cloth (Do not use material that can leave lint on the burn.).
- Do not apply ointments or butter to burns; these may cause infection.
- Take steps to prevent shock: lay the victim flat and elevate the feet about 12 inches.
- Have person sit up if face is burned. Watch closely for possible breathing problems.
- Elevate burned area higher than the victim's head when possible. Keep person warm and comfortable, and watch for signs of shock.
- Do not place a pillow under the victim's head if the person is lying down and there is an airway burn. This can close the airway.
- Immediate medical attention is required. Do not attempt to treat serious burns unless you are a trained health professional.

Use Caution with Alternative Heating Sources

If the electric or gas utilities are interrupted during cold months, individuals will be more inclined to pursue alternative heating sources. According to the National Fire Protection Association (NFPA), in 2005, heating equipment was involved in an estimated 62,200 reported home structure fires, 670 deaths, 1,550 injuries and \$909 million in direct property damage. By following the safety tips below, you can protect yourself, your family and your home from potential fire and other utilities-related threats during a natural or manmade disaster.

NFPA and the Consumer Product Safety Commission recommend the following heating safety tips:

Fire

- Space heaters need space. Keep things that can burn, such as paper, bedding or furniture at least three feet away from heating equipment.
- Turn portable heaters off when you go to bed or leave the room.
- Plug power cords only into outlets with sufficient capacity and never into an extension cord.
- Inspect for cracked, frayed or broken plugs or loose connections. Replace before using.
- Have your chimney inspected each year and cleaned if necessary.
- Use a sturdy fireplace screen.
- Allow ashes to cool before disposing. Dispose of ashes in a metal container.
- Install smoke alarms in every bedroom, outside each sleeping area and on every level of the home. For the best protection, interconnect all smoke alarms throughout the home—when one sounds, they all sound.
- Test smoke alarms at least once a month.
- Use extreme caution when using a generator.
- Install and maintain a carbon monoxide alarm in a central location and outside each sleeping area.
- Never use an oven to heat your home.

Terrorism

Building and Business Safety

Be Informed

- Know what kinds of emergencies might affect your company both internally and externally. Find out which natural disasters are most common in the areas where you operate. You may be aware of some of your community's risks; others may surprise you.
- Learn about what to do during a biological, chemical, explosive, nuclear or radiological attack.

Continuity of Operations Planning

How quickly your company can get back to business after a terrorist attack or tornado, fire or flood often depends on emergency planning done today. Start planning now to improve the likelihood that your company will survive and recover.

Carefully assess how your company functions, both internally and externally, to determine which staff, materials, procedures and equipment are absolutely necessary to keep the business operating.

- Review your business process flow chart if one exists.
 - Identify operations critical to survival and recovery.
 - Include emergency payroll, expedited financial decision-making and accounting systems to track and document costs in the event of a disaster.
 - Establish procedures for succession of management. Include at least one person who is not at the company headquarters, if applicable.
1. Identify your suppliers, shippers, resources and other businesses you must interact with on a daily basis.
 - Develop professional relationships with more than one company to use in case your primary contractor cannot service your needs. A disaster that shuts down a key supplier can be devastating to your business.
 - Create a contact list for existing critical business contractors and others you plan to use in an emergency. Keep this list with other important documents on file, in your [emergency supply kit](#) and at an off-site location.

Terrorism

2. Plan what you will do if your building, plant or store is not accessible. This type of planning is often referred to as a continuity of operations plan, or COOP, and includes all facets of your business.
 - Consider if you can run the business from a different location or from your home.
 - Develop relationships with other companies to use their facilities in case a disaster makes your location unusable.
3. Plan for payroll continuity.
4. Decide who should participate in putting together your emergency plan.
 - Include co-workers from all levels in planning and as active members of the emergency management team.
 - Consider a broad cross-section of people from throughout your organization, but focus on those with expertise vital to daily business functions. These will likely include people with technical skills as well as managers and executives.
5. Define crisis management procedures and individual responsibilities in advance.
 - Make sure those involved know what they are supposed to do.
 - Train others in case you need back-up help.
6. Coordinate with others.
 - Meet with other businesses in your building or industrial complex.
 - Talk with first responders, emergency managers, community organizations and utility providers.
 - Plan with your suppliers, shippers and others you regularly do business with.
 - Share your plans and encourage other businesses to set in motion their own continuity planning and offer to help others.
7. Review your emergency plans annually. Just as your business changes over time, so do your preparedness needs. When you hire new employees or when there are changes in how your company functions, you should update your plans and inform your people.

Terrorism

Emergency Planning for Employees

Your employees and co-workers are your business's most important and valuable asset. There are some procedures you can put in place before a disaster, but you should also learn about what people need to recover after a disaster. It is possible that your staff will need time to ensure the well-being of their family members, but getting back to work is important to the personal recovery of people who have experienced disasters. It is important to re-establish routines, when possible.

Two-way communication is central before, during and after a disaster.

- Include emergency preparedness information in newsletters, on company intranet, periodic employee emails and other internal communications tools.
- Consider setting up a telephone calling tree, a password-protected page on the company website, an email alert or a call-in voice recording to communicate with employees in an emergency.
- Designate an out-of-town phone number where employees can leave an "I'm Okay" message in a catastrophic disaster.
- Provide all co-workers with wallet cards detailing instructions on how to get company information in an emergency situation. Include telephone numbers or Internet passwords for easy reference.
- Maintain open communications where co-workers are free to bring questions and concerns to company leadership.
- Ensure you have established staff members who are responsible for communicating regularly to employees.

Talk to co-workers with disabilities. If you have employees with disabilities ask about what assistance is needed. People with disabilities typically know what assistance they will need in an emergency.

- Identify co-workers in your organization with special needs.
- Engage people with disabilities in emergency planning.
- Ask about communications difficulties, physical limitations, equipment instructions and medication procedures.
- Identify people willing to help co-workers with disabilities and be sure they are able to handle the job. This is particularly important if someone needs to be lifted or carried.

Terrorism

- Plan how you will alert people who cannot hear an alarm or instructions.
- Frequently review and practice what you intend to do during and after an emergency with drills and exercises.

Emergency Supplies

When preparing for emergency situations, it's best to think first about the basics of survival: fresh water, food, clean air and warmth. Encourage everyone to have a Portable Kit customized to meet personal needs, such as essential medications.

NOAA weather radio:

- With tone-alert feature, if possible, that automatically alerts you when a watch or warning is issued in your area. Tone-alert is not available in some areas.
- Include extra batteries.
- It is recommended that you have both a battery-powered commercial radio and a NOAA weather radio with an alert function. The NOAA weather radio can alert you to weather emergencies or announcements from the Department of Homeland Security. The commercial radio is a good source for news and information from local authorities.

Keep copies of important records such as site maps, building plans, insurance policies, employee contact and identification information, bank account records, supplier and shipping contact lists, computer backups, emergency or law enforcement contact information and other priority documents in a waterproof, fireproof portable container. Store a second set of records at an off-site location.

Talk to your co-workers about what emergency supplies the company can feasibly provide, if any, and which ones individuals should consider keeping on hand.

Recommended emergency supplies include the following:

- Water, amounts for portable kits will vary. Individuals should determine what amount they are able to both store comfortably and to transport to other locations. If it is feasible, store one gallon of water per person per day, for drinking and sanitation.
- Food, at least a three-day supply of non-perishable food

Terrorism

- Battery-powered radio and extra batteries
- Flashlight and extra batteries
- First aid kit
- Whistle to signal for help
- Dust or filter masks, readily available in hardware stores, which are rated based on how small a particle they filter
- Moist towelettes for sanitation
- Wrench or pliers to turn off utilities
- Can opener for food (if kit contains canned food)
- Plastic sheeting and duct tape to "seal the room"
- Garbage bags and plastic ties for personal sanitation

Deciding to Stay or Go

Depending on your circumstances and the nature of the disaster, the first important decision after an incident occurs is whether to shelter-in-place or evacuate. Understand and plan for both possibilities in advance by developing clear, well thought out plans.

- Have an Evacuation Plan and a Shelter-in-Place Plan.
- In any emergency, local authorities may or may not immediately be able to provide information on what is happening and what you should do. However, you should monitor TV or radio news reports for information or official instructions as they become available.
- If you are specifically told to evacuate, shelter-in-place or seek medical treatment, do so immediately.
- Use common sense and available information to determine if there is immediate danger. For example, if your building is damaged you will typically want to evacuate.

Fire Safety

Fire is the most common of all business disasters. Each year fires cause thousands of deaths and injuries and billions of dollars in damage.

- Have your office, plant or facility inspected for fire safety; ensure compliance with fire codes and regulations.

Terrorism

- Install smoke detectors and fire extinguishers in appropriate locations.
- Consider an automatic sprinkler system, fire hoses and fire-resistant doors and walls.
- Establish a system for warning your employees. Plan how you will communicate with people with hearing impairments or other disabilities and those who do not speak English.
- Put a process in place for alerting the fire department.
- Plan and practice how people will evacuate in a fire.

Medical Emergencies

Workplace medical emergencies vary greatly depending on the disaster, type of job and the worksite. Heavy equipment operators face different safety risks than do office workers or food service personnel. Regardless of the type of work, there are steps which can give you the upper hand in responding to a medical emergency.

- Encourage employees to take basic first aid and CPR training. Offer on-site classes for your co-workers.
- Keep first aid supplies in stock and easily accessible.
- Encourage employees to talk about medical conditions that may require support or special care in an emergency.
- Keep employee emergency contact information on file and up-to-date. Store a copy with other vital records in your emergency kit and another at an off-site location.

Influenza Pandemic

A pandemic is a global disease outbreak. An influenza pandemic occurs when a new influenza A virus emerges for which there is little or no immunity in the human population and the virus begins to cause serious illness and then spreads easily person-to-person worldwide. The federal government, states, communities and industry are taking steps to prepare for and respond to an influenza pandemic.

If a pandemic occurs, it is likely to be a prolonged and widespread outbreak that could require temporary changes in many areas of society, such as schools, work, transportation and other public services. An informed and prepared public can take appropriate actions to decrease their risk during a pandemic. To be prepared for such an emergency, the U.S Department of Health and Human Services encourages individuals, businesses and communities to:

Terrorism

- Talk with your local public health officials and health care providers, who can supply information about the signs and symptoms of a specific disease outbreak and recommend prevention and control actions.
- Adopt business/school practices that encourage sick employees/students to stay home and anticipate how to function with a significant portion of the workforce/school population absent due to illness or caring for ill family members.
- Practice good health habits, including eating a balanced diet, exercising daily and getting sufficient rest. In addition, take common-sense steps to stop the spread of germs including frequent hand washing, covering coughs and sneezes and staying away from others as much as possible when you are sick.
- Stay informed about pandemic influenza and be prepared to respond. Consult www.pandemicflu.gov frequently for updates on national and international information on pandemic influenza.

Involve Co-workers

One of the best methods of assuring your company's recovery is to provide for your co-workers' well-being. Communicate regularly with employees before, during and after an incident.

- Involve co-workers from all levels in emergency planning.
- Use newsletters, Intranets, staff meetings and other internal communications tools to communicate emergency plans and procedures.
- Set up procedures to warn employees. Plan how you will communicate with people who are hearing-impaired or have other disabilities or who do not speak English.
- Consider setting up a telephone call tree, password-protected page on the company website, email alert or call-in voice recording to communicate with employees in an emergency.
- Designate an out-of-town phone number where employees can leave an "I'm Okay" message in a catastrophic disaster. Remember to minimize your calls and keep them short so others can get through.
- Encourage employees to have alternate means and routes for getting to and from work, in case their normal mode of transportation is interrupted.
- Keep a record of employee emergency contact information with other important documents in your emergency kit and at an off-site location.

Terrorism

- If you rent, lease or share space with other businesses, it is important to communicate, share and coordinate evacuation procedures and other emergency plans.

Practice the Plan

Go beyond planning and frequently practice what you intend to do during a disaster. Just as your business changes day-to-day, so should your plan. Drills and exercises will help you prepare.

- If you rent, lease or share office space, coordinate and practice evacuation and other emergency plans with other businesses in your building or facility.
- Conduct regularly scheduled education and training seminars to provide co-workers with information, identify needs and develop preparedness skills.
- Include preparedness training in new employee orientation programs.
- Do tabletop exercises with members of the emergency management team. Meet in a conference room setting to discuss individual responsibilities and how each would react to emergency scenarios.
- Schedule walk-through drills where the emergency management team and response teams actually perform their designated emergency functions. This activity generally involves more people and is more thorough than a tabletop exercise.
- Practice evacuating and sheltering. Have all personnel walk the evacuation route to a designated area where procedures for accounting for all personnel are tested. Practice your "shelter-in-place" plan.
- Evaluate and revise processes and procedures based on lessons learned in training and exercise.
- Keep training records.

Promote Preparedness

Re-establishing routines, including getting back to work, is important to the well-being of people who have experienced disasters. If individuals and families are prepared, your company and your co-workers are better positioned in an emergency situation.

- Encourage your employees and their families to: Get a Kit, Make a Plan, Be Informed.
- Include emergency preparedness information in newsletters, on company Intranet, periodic employee emails and other internal communications tools.

Terrorism

- Consider how workers will communicate with family members in case they are separated from one another or injured.

Crisis Communication Plan

Detail how your organization plans to communicate with employees, local authorities, customers and others during and after a disaster.

- Employees: Be prepared to provide employees with information on when, if and how to report to work following an emergency.
 - Set up a telephone call tree, password-protected page on the company website, an email alert or a call-in voice recording to communicate with employees in an emergency.
 - Be clear on how their jobs may be affected.
- Management: Provide top company executives with all relevant information needed for the protection of employees, customers, vendors and nearby facilities.
- Public: It may be important to update the general public with calm assurance that all resources are being used to protect workers and the community. Being able to communicate that plans are in place for recovery may be especially important.
- Customers: Update your customers on whether and when products will be received and services rendered.
- Government: Tell officials what your company is prepared to do to help in the recovery effort. Also communicate with local, state and federal authorities what emergency assistance is needed for you to continue essential business activity.
- Other businesses/immediate neighbors: You should be prepared to give competing and neighboring companies a prompt briefing on the nature of the emergency so they may be able to assess their own threat levels.

Employee Health

People who have experienced a disaster may have special recovery needs.

- Encourage adequate food, rest and recreation.

Terrorism

- Provide for time at home to care for family needs, if necessary.
- Have an open door policy that facilitates seeking care when needed.
- Create opportunities for breaks where co-workers can talk openly about their fears and hopes. Sharing with others can speed personal recovery.
- Reassure one another that families will be supported. Worries about family well-being can consume workers who have experienced a disaster.
- Re-establish routines, when possible. Workplace routines facilitate recovery by providing an opportunity to be active and to restore social contact.
- Offer professional counselors to help co-workers address their fears and anxieties.
- Once the need to listen for emergency instructions has passed, limit television, radio and other external stresses.
- Take care of yourself. Leaders tend to experience added stress after a disaster. Your personal health and recovery is important to your family and your employees.

Review Insurance Coverage

Inadequate insurance coverage can lead to major financial loss if your business is damaged, destroyed or simply interrupted for a period of time. Insurance policies vary, check with your agent or provider.

- Meet with your insurance provider to review current coverage for such things as physical losses, flood coverage and business interruption.
- Understand what it covers and what it does not.
- Understand what your deductible is, if applicable.
- Consider how you will pay creditors and employees.
- Plan how you will provide for your own income if your business is interrupted.
- Find out what records your insurance provider will want to see after an emergency and store them in a safe place.

Utility Disruptions

Businesses are often dependent on electricity, gas, telecommunications, sewer and other utilities.

Terrorism

- Plan ahead for extended disruptions during and after a disaster. Carefully examine which utilities are vital to your business's day-to-day operation. Speak with service providers about potential alternatives and identify back-up options.
- Learn how and when to turn off utilities. If you turn the gas off, a professional must turn it back on. Do not attempt to turn the gas back on yourself.
- Consider purchasing portable generators to power the vital aspects of your business in an emergency. Never use a generator inside as it may produce deadly carbon monoxide gas. It is a good idea to pre-wire the generator to the most important equipment. Periodically test the backup system's operability.
- Decide how you will communicate with employees, customers, suppliers and others. Use cell phones, walkie-talkies or other devices that do not rely on electricity as a back-up to your telecommunications system.
- Plan a secondary means of accessing the Internet if it is vital to your company's day-to-day operations.
- If food storage or refrigeration is an issue for your business, identify a vendor in advance that sells ice and dry ice in case you can't use refrigeration equipment.

Secure Facilities

While there is no way to predict what will happen or what your business's circumstances will be, there are things you can do in advance to help protect your physical assets.

- Install fire extinguishers and smoke detectors in appropriate places.
- Locate and make available building and site maps with critical utility and emergency routes clearly marked.
- Plan to provide a copy to firefighters or other first responders in the event of a disaster.
- Keep copies of these documents with your emergency plan and other important documents in your Emergency Supply Kit.
- Consider if you could benefit from automatic fire sprinklers, alarm systems, closed circuit TV, access control, security guards or other security systems.
- Secure ingress and egress. Consider all the ways in which people, products, supplies and other things get into and leave your building or facility.

Terrorism

- Plan for mail safety. The nation's battle against terrorism takes place on many fronts, including the mailrooms of U.S. companies. A properly informed and well-trained workforce can overcome such threats.
 - Teach employees to be able to quickly identify suspect packages and letters. Warning signs include:
 - Misspelled words
 - No return address
 - Excessive use of tape
 - Strange discoloration or odor

The United States Postal Service suggests that if a suspect letter or package is identified:

- Don't open, smell, touch or taste.
- Immediately isolate suspect packages and letters.
- Move out of the area and don't let others in.
- Quickly wash with soap and water and remove contaminated clothing.
- Contact local law enforcement authorities.
- Post emergency numbers for easy reference.
- Identify what production machinery; computers, custom parts or other essential equipment is needed to keep the business open.
- Plan how to replace or repair vital equipment if it is damaged or destroyed.
- Identify more than one supplier who can replace or repair your equipment.
- Store extra supplies, materials and equipment for use in an emergency.
- Plan what you will do if your building, plant or store is not usable.
- Consider if you can run the business from a different location or from your home.
- Develop relationships with other companies to use their facilities in case a disaster makes your location unusable.
- Identify and comply with all local, state and federal codes and other safety regulations that apply to your business.
- Talk to your insurance provider about what impact any of these steps may have on your policy.

Terrorism

Secure Equipment

The force of some disasters can damage or destroy important equipment.

- Conduct a room-by-room walk-through to determine what needs to be secured.
- Attach equipment and cabinets to walls or other stable equipment.
- Place heavy or breakable objects on low shelves.
- Move workstations away from large windows, if possible.
- Elevate equipment off the floor to avoid electrical hazards in the event of flooding.

Building Air Protection

In some emergencies microscopic particles may be released into the air. For example, earthquakes often can release dust and debris into the air. A biological attack may release germs that can make you sick. And a dirty bomb can spread radioactive particles. Many of these things can only hurt you if they get into your body. A building can provide a barrier between contaminated air outside and people inside, but there are ways to improve building air protection.

Depending on the size of the building and the design and layout of the Heating, Ventilating and Air-Conditioning (HVAC) system, there may be simple steps building owners and managers can take to help protect people from some airborne threats. If you rent or lease your space, speak to the building's owners and managers; regarding HVAC maintenance. Ask if there are options for improving building air protection.

- DHS has a designated HVAC protection system, Please go to <http://www.safetyact.gov> to find the Building Sentry One line of toxin protection systems that are commercially installed and available to protect occupants of a building from the catastrophic results of chemical, radiological or biological agent in air contamination incidents and during emergencies.
- Know your HVAC system.
 - Building owners or managers and employers should take a close look at the site's system and be sure it is working properly and is well maintained.
 - Be sure any security measures do not adversely impact air quality or fire safety.
- Develop and practice shut-down procedures for the HVAC system.

Terrorism

- Secure outdoor air intakes. HVAC systems can be an entry point and means of distributing biological, chemical and radiological threats.
 - Limit access to air intake locations to protect the people inside a building from airborne threats. Air intakes at or below ground level are most vulnerable because anyone can gain easy access.
 - Consider relocating or extending an exposed air intake, but do not permanently seal it.

Determine if you can feasibly upgrade the building's filtration system.

- Increasing filter efficiency is one of the few things that can be done in advance to consistently protect people inside a building from biological and some other airborne threats.
 - Carefully consider the highest filtration efficiency that will work with a building's HVAC system.
- High Efficiency Particulate Arrestor (HEPA) filter fans. These individual units have highly efficient filters that can capture very tiny particles, including many biological agents. Once trapped within a HEPA filter, contaminants cannot get into your body and make you sick. While these filters are excellent at filtering dander, dust, molds, smoke, many biological agents and other contaminants, they will not stop chemical gases.

Cyber Security

Protecting your data and information technology systems may require specialized expertise. Depending on the particular industry and the size and scope of the business, cyber security can be very complicated. However, even the smallest business can be better prepared.

Every computer can be vulnerable to attack. The consequences of such an attack can range from simple inconvenience to financial catastrophe. While a thief can only steal one car at a time, a single hacker can cause damage to a large number of computer networks and can wreak havoc on both your business and the nation's critical infrastructure.

- Use anti-virus software and keep it up-to-date.
- Activate the software's auto-update feature to ensure your cyber security is always up-to-date. Think of it as a regular flu shot for your computer to stop viruses in their tracks!

Terrorism

- Don't open email from unknown sources.
- Be suspicious of unexpected emails that include attachments whether they are from a known source or not.
- When in doubt, delete the file and the attachment, and then empty your computer's deleted items file.
- Use hard-to-guess passwords.
- Passwords should have at least eight characters with a mixture of uppercase and lowercase letters as well as numbers.
- Change passwords frequently.
- Do not give your password to anyone.
- Protect your computer from Internet intruders by using firewalls.
- There are two forms of firewalls: software firewalls that run on your personal computer and hardware firewalls that protect computer networks or groups of computers.
- Firewalls keep out unwanted or dangerous traffic while allowing acceptable data to reach your computer.
- Don't share access to your computers with strangers.
- Check your computer operating system to see if it allows others to access your harddrive. Hard-drive access can open up your computer to infection.
- Unless you really need the ability to share files, your best bet is to do away with it.
- "Https" or "http" at the beginning of a Web address (URL) are each an indication that a website has taken extra security steps to protect your information. Look for either one when conducting online transactions.
- Be careful which sites or services you access when using public wireless networks. Even if they are secure (require a password to get on), you never know who else is using the network.
- Back up your computer data. Many computer users have either already experienced the pain of losing valuable computer data or will at some point in the future. Back up your data regularly and consider keeping one version offsite.
- Regularly download security protection updates known as patches. Patches are released by most major software companies to cover up security holes that may develop in their programs.
- Regularly download and install the patches yourself, or check for automated patching features that do the work for you.

Terrorism

- Check your security on a regular basis.
- When you change your clocks for Daylight Saving Time, evaluate your computer security. The programs and operating system on your computer have security settings that you can adjust.
- Do you have multiple door locks and a high-tech security system at your office? It could be that tighter security for your computer system is also what you need.
- Pack it up and take your laptop with you, even if you intend to be right back. Unattended laptops in public places like libraries, study lounges, break rooms and coffee shops are an invitation for theft or unwanted access to your information.
- Employ the same online safety behaviors when "surfing" on a mobile device. Make sure your co-workers know what to do if your computer system becomes infected.
- Train employees on how to update virus protection software, how to download security patches from software vendors and how to create a proper password.
- Include or update cyber security practices in employee handbooks and pay special attention to policies regarding the use of mobile devices and laptops when used offsite.
- Designate a person to contact for more information if there is a problem.
- Subscribe to the Department of Homeland Security (DHS) National Cyber Alert System to receive free, timely alerts on new threats and learn how to better protect your area of cyberspace.
- US-CERT is a partnership between DHS and public and private sectors. It was established to protect the nation's Internet infrastructure through coordinated defense against and responses to cyber attacks.
- Participate in National Cyber Security Awareness Month.

Commuter Safety

- Become familiar with the emergency procedures for your local transit system.
- Learn and practice alternate routes to where you may need to go.
- Take special note of the emergency exits at the stations you use.
- Carry a flashlight, dust mask and protective gloves with you.
- Keep a local map with you in case you need to walk or find alternate transportation.
- Update your family disaster plan to include your regular commuting routes.
- Locate the nearest payphone and carry coins as some cellular telephones may not work in underground transportation.

Terrorism

Terrorism

Signs of Criminal and Terrorist Activity

While it's impossible to tell whether a person is planning to engage in criminal or terrorist activities just by looking at them, there are definite observable signs of terrorist and criminal activity citizens should watch out for. They include:

- **Surveillance:** Recording or monitoring activities, drawing diagrams, making notes on maps, using vision-enhancing devices such as binoculars or possessing plans or blueprints of high-tech firms, government or military facilities, hotels, power facilities or roadways.
- **Elicitation:** Attempting to gather information such as security rotations and patrols, when employees come and go and when and how deliveries are made. In a residential area, potential criminals may ask neighbors about work schedules or vacation plans.
- **Testing security:** Trying to break through physical security barriers like locked doors or fences or attempting to gain access to a facility by circumventing metal detectors or check points.
- **Acquiring supplies:** Perpetrators may purchase or steal public safety, law enforcement or military vehicles, equipment, identification badges, uniforms or decals. They may seek explosives, weapons, ammunition, harmful chemicals or chemical equipment.
- **Suspicious persons who don't belong:** Someone in a workplace, building, neighborhood, business or other public venue whose behavior seems suspicious because of the unusual questions they ask, the statements they make or their demeanor.
- **Dry or trial runs:** Before carrying out the final operation or plan, some criminals and terrorists may conduct a dry run or trial run. A trial run consists of putting people and resources into position and moving them around according to the plan without actually committing the illegal act.
- **Deploying assets or getting into position:** If you see someone arranging equipment, or other suspicious supplies or placing people at or near a target, you may only have a few seconds to report the activity to law enforcement.

Be alert to your surroundings

Alert and informed citizens are frequently instrumental in deterring criminal activities.

- Pay attention to those around you.
- Be alert to suspicious behavior.

Terrorism

If you see something, say something

If you think something isn't right, report it to security, local police, Indiana State Police, the Indiana Intelligence Fusion Center (866-400-4432) or, if you believe danger is imminent, call 9-1-1.

What to know when making a report

Always remember, your safety comes first. Do not approach or otherwise attempt to interfere with suspicious individuals. If you can do so safely try to remember these details:

- Number of people involved.
- Key physical features like ethnicity, hair color, height, weight, age and other distinguishing characteristics.
- Details about any vehicles, including license plate number, make, model, color, damage or bumper stickers.

Biological Threats

Biological attacks are a purposeful release of germs and other viral or bacterial substances. This is very dangerous because there are little to no warning signs. The most common sign of this attack is when health care workers notice that a larger than normal group of individuals come in with the same symptoms.

Things to know about viral biological weapons:

- Require a host for them to live. Once infected there is no cure, only the symptoms can be treated.

Bacterial biological weapons:

- Weapons that are capable of multiplying and surviving on their own. They can be treated via antibiotics if caught early enough.

Biological release:

- If there was release in the area, get away immediately.
- Cover your mouth and nose with multiple layers of fabric.
- Cover any open cuts.
- Wash with lots of soap and water.

Terrorism

- Listen to radio, TV or Internet to determine what steps to take.
- If you become ill, alert hospital that you may have been exposed and follow their instructions.

If you are exposed:

- Follow instructions of doctors and public health officials.
- You will probably be quarantined until health officials determine if it is contagious and what the threat is.
- If you think you have been exposed to a biological emergency, listen to the radio and TV to determine if your symptoms match the ones given. If they do, head to the hospital.

Chemical Threat Awareness

Chemical attacks are a deliberate release of toxic solids, liquids or gases. These are very harmful not only to people, but the environment as well. If exposed to a chemical attack, contact your local emergency personnel immediately.

Chemical weapons:

- Are man-made and come in a liquid or gas form. They affect a person's nervous system, blood, skin or lungs. They cause blistering, inability to breathe, vomiting, loss of bodily control and possibly death.

Chemical agents:

- Can be used as a weapon - are hazardous chemicals that have serious effects on people who are exposed. Examples are bombs, aerosol devices or even crop-dusting airplanes.

Exposure:

Common symptoms if exposed are:

- Watery eyes
- Twitching
- Choking

Terrorism

- Having problems breathing
- Loss of coordination

What to do:

- Find clean air.
- Do NOT be downwind of the contamination.
- Move as far away as possible from the contamination.
- Remove clothing by cutting it off. Do NOT pull contaminated clothing over your head. Then put into plastic bags and put it far away from other persons.
- Decontaminate by taking a shower with lots of soap and water. Be sure to NOT scrub the chemical into your skin. You want to wash it off instead.
- If you are stuck in a building and can't get out without going past the chemical agent/material, find clean air or start to barricade yourself as far away as possible. Contact authorities as soon as possible.

Nuclear Threat Awareness

A nuclear bomb creates an explosion that will have an intense blast wave and produce radioactive material which will be deposited over a large area contaminating the air, water and other surfaces. The bomb also has an extremely bright flash and intense heat associated with it. Radioactive material can cause death.

If there is a warning:

- If a warning occurs, take cover immediately. Underground is the safest place to receive protection from the blast.
- Do NOT look at the explosion - the flash could blind you.
- Get on the ground face down, turn away, cover your eyes and place your hands under your body.
- Caution: A blast wave may take 20-30 seconds to reach you so remain down until it passes.
- Immediately seek shelter and start to isolate yourself from the outside.
- Shield yourself from possible radiation exposure.
- The further you can get away from the blast, the better.
- Minimize the time you are exposed to any possible radiation.

Terrorism

If there is no warning:

- Shield yourself from possible radiation exposure.
- Cover eyes and nose with a piece of cloth while running to shelter.
- Remove any dirt or debris that might be on your clothing.
- Put clothes in plastic bags and seal them tightly, then put them in a room far away from you.
- Take a shower and scrub with lots of soap and water. Earlier you say not to scrub???
- Finally, you can start to tape off a room that you will stay in.
- Bring plenty of supplies.
- Close vents, turn off a/c or heater, turn off fans, close fireplace dampers, lock all doors and close and lock windows.
- The further you can get away from the blast, the better.
- Minimize time spent in the radiation zone.
- Most radiation from the blast will travel with the wind. Try and stay up wind.
- Don't stay outside longer than you have to. Get in and get clean as soon as possible.
- Eat only stored food, nothing fresh.
- Listen to radio and watch TV in order to find out what actions need to be taken.

Nuclear Threat Preparedness

If there is a warning:

- If a warning occurs, take cover immediately. Underground is the safest place to receive protection from the blast
- Do NOT look at the explosion—the flash could blind you.
- Get on the ground face down, turn away, cover your eyes and place your hands under your body.
- CAUTION: A blast wave may take 20-30 seconds to reach you so remain down until it passes.
- Immediately seek shelter and start to isolate yourself from the outside.
- Shield yourself from possible radiation exposure.
- The further you can get away from the blast, the better.
- Minimize the time you are exposed to any possible radiation.

Terrorism

If there is no warning:

- Shield yourself from possible radiation exposure.
- Cover eyes and nose with a piece of cloth while running to shelter.
- Remove any dirt or debris that might be on your clothing.
- Put clothes in plastic bags and seal them tightly then put them in a room far away from you.
- Take a shower and scrub with lots of soap and water.
- Finally, you can start to tape off a room that you will stay in.
- Bring plenty of supplies.
- Close vents, turn off a/c or heater, turn off fans, close fireplace dampers, lock all doors and close and lock all windows.
- The further you can get away from the blast, the better.
- Minimize time spent in the radiation zone.
- Most radiation from the blast will travel with the wind. Try and stay up wind.
- Don't stay outside longer than you have to. Get in and get clean as soon as possible.
- Eat only stored food, nothing fresh.
- Listen to radio and watch TV in order to find out what actions need to be taken.

Nuclear Blasts

A nuclear blast is an explosion with intense light and heat, a damaging pressure wave and widespread radioactive material that can contaminate the air, water and ground surfaces for miles around. A nuclear device can range from a weapon carried by an intercontinental missile launched by a hostile nation or terrorist organization, to a small portable nuclear device transported by an individual. All nuclear devices cause deadly effects when exploded, including blinding light, intense heat (thermal radiation), initial nuclear radiation, blast, fires started by the heat pulse and secondary fires caused by the destruction.

Hazards of Nuclear Devices

The extent, nature and arrival time of these hazards are difficult to predict. The geographical dispersion of hazard effects will be defined by the following:

- Size of the device. A more powerful bomb will produce more distant effects.
- Height above the ground the device was detonated. This will determine the extent of blast effects.

Terrorism

- Nature of the surface beneath the explosion. Some materials are more likely to become radioactive and airborne than others. Flat areas are more susceptible to blast effects.
- Existing meteorological conditions. Wind speed and direction will affect arrival time of fallout; precipitation may wash fallout from the atmosphere.

Radioactive Fallout

Even if individuals are not close enough to the nuclear blast to be affected by the direct impacts, they may be affected by radioactive fallout. Any nuclear blast results in some fallout. Blasts that occur near the earth's surface create much greater amounts of fallout than blasts that occur at higher altitudes. This is because the tremendous heat produced from a nuclear blast causes an up-draft of air that forms the familiar mushroom cloud. When a blast occurs near the earth's surface, millions of vaporized dirt particles also are drawn into the cloud. As the heat diminishes, radioactive materials that have vaporized condense on the particles and fall back to Earth. The phenomenon is called radioactive fallout. This fallout material decays over a long period of time, and is the main source of residual nuclear radiation.

Fallout from a nuclear explosion may be carried by wind currents for hundreds of miles if the right conditions exist. Effects from even a small portable device exploded at ground level can be potentially deadly.

Nuclear radiation cannot be seen, smelled or otherwise detected by normal senses. Radiation can only be detected by radiation monitoring devices. This makes radiological emergencies different from other types of emergencies, such as floods or hurricanes. Monitoring can project the fallout arrival times, which will be announced through official warning channels. However, any increase in surface build-up of gritty dust and dirt should be a warning for taking protective measures.

Electromagnetic Pulse

In addition to other effects, a nuclear weapon detonated in or above the earth's atmosphere can create an electromagnetic pulse (EMP), a high-density electrical field. An EMP acts like a stroke of lightning but is stronger, faster and shorter. An EMP can seriously damage electronic devices connected to power sources or antennas. This includes communication systems, computers, electrical appliances and automobile or aircraft ignition systems. The damage could range from a minor interruption to actual burnout of components. Most electronic equipment within 1,000 miles of a high-altitude nuclear detonation could be affected. Battery-

Terrorism

powered radios with short antennas generally would not be affected. Although an EMP is unlikely to harm most people, it could harm those with pacemakers or other implanted electronic devices.

Exposure vs. Contamination

An individual is exposed to radioactive material if he/she is close enough to be harmed by it. An individual is contaminated by radioactive material if he/she has radioactive material either in or on their body.

Like getting an x-ray at a hospital, the individual is exposed to the x-rays, but cannot pass that exposure on to anyone else after the procedure is finished. Someone who has been exposed to radioactive material does not become radioactive. He/she cannot pass on that radiation to anyone else.

However, a person who is contaminated by radioactive material has radioactive material in or on his/her body. He/she can expose other people. An individual can become contaminated by ingesting or inhaling radioactive materials or walking through contaminated fallout.

If an individual is contaminated he/she is continuing to be exposed and expose others to radioactive material and should be decontaminated as soon as possible.

Food Safety

- Turn off your water until authorities indicate it is safe. Water already in your water heater, ice maker and toilet tanks is safe to drink and bathe in.
- Any unpackaged food or water that was out in the open and close to the incident may have radioactive dust on it. Therefore, do not consume water or food that was out in the open.
- The food inside of cans and other sealed containers will be safe to eat. Wash the outside of the container before opening it.
- Home grown produce should be tested for radioactive contamination before it is consumed. Checking for contamination at home gardens and small-scale farms may not begin for weeks after the emergency.
- Authorities will monitor food and water quality for safety and keep the public informed.

Radiation Duration

How long will the radiation threat last?

Terrorism

- The heaviest fallout would be limited to the area at or downwind from the explosion; 80% of the fallout would occur during the first 24 hours.
- People in most of the areas that would be affected could be allowed to come out of shelter within a few days and, if necessary, evacuate to unaffected areas.
- Radioactive fallout poses the greatest threat to people during the first two weeks, by which time it has declined to about 1% of its initial radiation level.
- However, the amount of fallout will vary based on the size of the device and its proximity to the ground. Therefore, it might be necessary for those in the areas with highest radiation levels to shelter for up to a month.

Remember the following when returning home:

- Keep listening to radio and television broadcasts for news about what to do, where to go and places to avoid.
- Stay away from damaged areas. Stay away from areas marked “radiation hazard” or “HAZMAT.” Remember that radiation cannot be seen, smelled or otherwise detected by human senses.

Radiological Incident Talking Points

State EOC activation level

The State Emergency Operations Center (EOC) has been activated at the highest level and will remain activated 24 hours a day to monitor conditions and provide resource support to local county emergency agencies.

A Joint Information Center (JIC) has been established to coordinate information and public safety messages.

Members of the media only may contact the JIC at 317-238-1784.

Public Safety and Protective Action Guidance

Immediate action message

We believe a [nuclear/radiological incident] has occurred at [Location] here in [City].

Remain calm.

Know where you are. Remembering where you were at the time of the blast will help public health and safety officials determine your level of exposure later.

Go deep inside:

Terrorism

- Find the nearest and strongest building you can and go inside to avoid any radioactive dust outside.
- If better shelter, such as a multi-story building or basement can be reached within a few minutes, go there immediately.
- If you are in a car, find a building for shelter immediately. Cars do not provide adequate protection from radiation from a nuclear detonation.
- Go to the basement or the center of the middle floor of a multi-story building (for example, the center of the 5th floor of a 10-story building or the 15th floor of a 30-story building).

This may feel like it goes against your natural instinct to evacuate from a dangerous area; however, health risks from radiation exposure can be greatly reduced by:

- Putting building walls, brick, concrete or soil between you and the radioactive material outside, and
- Increasing the distance between you and the exterior walls, roofs and ground, where radioactive material is settling.

Stay inside:

- Do not come out until you are instructed to do so by authorities or emergency responders.
- Do NOT attempt to retrieve children or other family members from schools or other facilities unless public safety authorities indicate it is safe to do so. If you have children or loved ones who are not with you, your first instinct may be to find them. However, you must remember that leaving people sheltered where they are is the best way to protect them. Schools have emergency plans and shelters so if your children are at school, it is usually best for them to stay there until authorities tell you it is safe to travel.

Stay tuned to television and radio broadcasts for important updates:

- If your facility has a National Oceanic and Atmospheric Administration (NOAA) Weather Radio, this is a good source of information.
- If you have been instructed to stay inside, stay tuned because these instructions will change.

Radiation levels are extremely dangerous after a nuclear detonation but the levels reduce rapidly, in just hours to a few days.

During the time with the highest radiation levels it is safest to stay inside, sheltered away from the material outside.

When evacuating is in your best interest, you will be instructed to do so.

- People in the path of the radioactive plume – downwind from the detonation - may also be asked to take protective measures.

Terrorism

- Avoid using telephones and cell phones unless you have an emergency. If local lines are overwhelmed, you may be able to get a call through to an out-of-state contact. Text messages may also have a better chance of getting through than a phone call. Remember, you CANNOT text 9-1-1.

Self-decontamination, food and water safety:

We believe a [nuclear/radiological incident] has occurred at [Location] here in [City].

- If you live anywhere in the metropolitan area, you should be inside a stable building.
- If you were outside at the time of the explosion and located in [Specify Area], there are simple steps you can take to remove radioactive dust that you may have on your body.
- Remove your clothing to keep radioactive dust from spreading.
- You should act as if you are going home covered in mud and you do not want to track mud in your home.
- If practical, place your clothing in a plastic bag and seal or tie the bag.
- Place the bag as far away as possible from humans and animals so that the radiation it gives off does not affect others.
- Removing the outer layer of clothing can remove up to 90% of radioactive dust.
- When possible, take a shower with lots of soap and water to limit radiation contamination. Do not scrub or scratch the skin.
- Wash your hair with shampoo or soap and water. Do not use conditioner in your hair.
- Gently blow your nose and wipe your eyelids and eyelashes with a clean wet cloth. Gently wipe your ears.
- Put on clean clothing.
- If you cannot shower, use a wipe or clean wet cloth to wipe your skin that was not covered by clothing.

For food safety:

- Rinse all counters, plates, pots and utensils before use to remove any radioactive material that settles on them.
- Food in your refrigerator or freezer is safe to eat, if you have not lost power.
- Food in sealed containers is also safe to eat.
- Rinse the outside of all packaged food before opening them.

For water safety:

- Turn off your water immediately. Water already in your water heater, ice maker and toilet tanks are safe to drink and bathe in.
- Bottled water is the only source that we are certain is free of contamination.
- Before opening, use a clean towel to wipe off the bottle to remove any contaminants.

Terrorism

- It is important to note that most distribution systems have several days of water supply in covered storage.
- If you have water pressure and need water to drink, save water in clean containers for drinking.

Is the air safe to breathe?

- This explosion released large amounts of dust and debris into the air.
- Radioactive material is one of many pollutants released by this event.
- The radioactive material released in the air is dangerous for the area downwind from the explosion.
- Please follow safety instructions provided by state and local officials and stay tuned because instructions will change.
- Covering your mouth and nose with a protective layer – like a mask, cloth or towel – can help reduce the amount of particles you breathe.
- If you have been instructed to stay inside, it is because walls provide protection from the radioactive material outside.
- Radiation levels are extremely dangerous after a nuclear detonation but the levels reduce rapidly, in just hours to a few days.
- We are tracking the radiation levels and authorities will instruct you to leave the area when it is safest and in your best interest to do so.

What are the most appropriate actions to be taken by the public? What can people do to protect themselves from harm?

Follow the instructions from state and local officials and responders.

These instructions are based on the best information we have right now and may be different for different areas.

These instructions may change as we gather more information.

These instructions are for your safety.

Hoosiers can best help by:

Stay tuned to television and radio broadcasts for important updates.

Things will change and you will be kept fully informed.

You can also get information on the Internet at [website].

Avoid using telephones and cell phones unless you have an emergency.

If local lines are overwhelmed, you may be able to get a call through to an out-of-state contact.

Terrorism

Text messages may also have a better chance of getting through than a phone call.

Remember, you CANNOT text 9-1-1.

This will free up lines so people who are in need can call for help and emergency responders can contact each other.

Stay away from the disaster area so emergency responders can assist those who need help.

Visit websites of local community support and volunteer groups to see how you can help support those in need [Provide links to volunteer sites].

Obey all directions from police officers, firefighters and other public safety officials.

Three factors to remember when sheltering:

- Distance - the more distance between you and the fallout particles, the better. An underground area such as a home or office building basement offers more protection than the first floor of a building. A floor near the middle of a high-rise may be better, depending on what is nearby at that level on which significant fallout particles would collect. Flat roofs collect fallout particles so the top floor is not a good choice, nor is a floor adjacent to a neighboring flat roof.
- Shielding - the heavier and denser the materials - thick walls, concrete, bricks, books and earth - between you and the fallout particles, the better.
- Time - fallout radiation loses its intensity fairly rapidly. The heaviest fallout would be limited to the area at or downwind from the explosion, and 80% of the fallout would occur during the first 24 hours. Radioactive fallout poses the greatest threat to people during the first two weeks, by which time it has declined to about 1% of its initial radiation level.

Who should evacuate and who should seek shelter (go inside and stay inside)?

We are working to reduce people's exposure to dangerous levels of radioactivity.

Radiation levels are extremely dangerous after a nuclear detonation but the levels reduce rapidly, in just hours to a few days.

During the time with the highest radiation levels it is safest to stay inside, sheltered away from the material outside.

As radiation levels decrease, safety measures may change.

If you are told to shelter, go to the basement or the center of the middle floor of a multi-story building (for example, the center of the 5th floor of a 10-story building or the 15th floor of a 30-story building).

This may feel like it goes against your natural instinct to evacuate from a dangerous area; however, health risks from radiation exposure can be greatly reduced by:

Terrorism

- Putting building walls, brick, concrete or soil between you and the radioactive material outside, and
- Increasing the distance between you and the exterior walls, roofs and ground, where radioactive material is settling.
- Individuals who are sheltering will be instructed to leave the area as soon as the risk from exposure decreases.
- People in the path of the radioactive plume may be asked to take protective measures.
- Please follow instructions from responders.

Whether you are told to stay inside or evacuate, these instructions are meant to limit your exposure to high levels of radiation and reduce your risk of contamination.

If you are advised to evacuate:

- Do NOT evacuate unless you are instructed to do so by public safety officials. It is important to wait until you are told to evacuate so that you will know which direction the radioactive plume is moving and how to avoid it.
- Listen to the radio or television for information about evacuation routes, temporary shelters and procedures to follow.
- Before you leave, close and lock windows and doors and turn off air conditioning, vents, fans and furnace. Close fireplace dampers.
- Take disaster supplies with you (such as a flashlight and extra batteries, battery-operated radio, first aid kit and manual, emergency food and water, nonelectric can opener, essential medicines, cash and credit cards and sturdy shoes).
- Remember your neighbors may require special assistance, especially infants, elderly people and people with disabilities.
- Visit [in.gov/dhs/files/travel-advisory-map/](https://www.in.gov/dhs/files/travel-advisory-map/) for updated county travel advisories.

I have been instructed to stay inside, but I have no food, water or needed medications. What should I do?

- Continue to remain sheltered for as long as you can until you receive additional instructions from authorities.
- The longer you stay sheltered the safer you will be from radiation and other hazards associated with the incident.
- Please remember that leaving your location may expose you to harmful radiation that could further injure you as well as those assisting in response efforts.
- Once authorities provide instructions that it is safe to go outside, please proceed to designated shelters if you require food, water or medical attention.

For food or water concerns:

Authorities are aware of the limitations in food and water and are making efforts to resolve these issues.

Terrorism

For needed medication concerns:

Stay sheltered for as long as possible.

If the lack of medications creates a life-threatening condition that requires immediate medical attention, please call 9-1-1 or proceed to the nearest fire station, hospital or pre-determined medical triage area for help.

For non-life threatening medical care:

If you have injuries that are not life-threatening, please remain in your shelter until it is safe to proceed to your nearest fire station, hospital or pre-determined medical triage area for help.

Will there be shelters that I can stay in once an evacuation is ordered? How long can I stay there?

Yes, designated shelters will be available.

Even though shelters often provide water, food, medicine and basic sanitary facilities, you should plan to take your disaster supplies kit with you so you will have the supplies that you require.

Is the water safe to drink?

Turn off your water until authorities indicate it is safe. Water already in your water heater, ice maker and toilet tanks is safe to drink and bathe in.

Until we have verified test results, if you are in the affected area OR if your water source is in the affected area, bottled water is the only source that we are certain is free of contamination.

If you have been asked to stay inside, it is because radiation levels outside are dangerously high. Do not go out looking for bottled water.

If you have bottled water, before opening, use a clean towel to wipe off the bottle to remove any contaminants.

It is important to note that most distribution systems have several days of water supply in covered storage. Even above ground sources contain large amounts of water that would significantly dilute radioactive contamination.

If you have water pressure and need water to drink, save water in clean containers for drinking.

We have started to collect water samples. The analyses take time.

Once the samples get to the laboratory, we may have initial results within several hours.

Complete analysis can take weeks.

Please follow the instructions of state and local officials and responders.

Terrorism

As we gather more information, instructions may change.

As the data is received and verified we will work with state and local officials and responders to release the information.

Is the food safe to eat?

- If you are concerned about the safety of your food, as always, wash your hands with soap and water before handling any food.
- This will help remove radioactive material from your hands, limiting spread to your food.
- Rinse all food contact surfaces; counters, plates, pots and utensils before use to remove any radioactive material that may have settled on them.
- In order to keep radioactive material from falling on areas that you already cleaned, remember to work from the higher areas to the lower levels.
- Food in your refrigerator or freezer also is safe to eat, if you have not lost power.
- Keep food off counters or anything else that could be contaminated with radioactive material.
- Do not pick or eat produce from your garden.
- You can use sealed or frozen food and liquids.
- Rinse the outside of all packaged food before opening them.
- Consumers can call the toll-free U.S. Department of Agriculture Meat and Poultry Hotline 24 hours a day at 1-888-MPHotline (1-888-674-6854); for the hearing-impaired (TTY) 1-800-256-7072.

Can I eat food from my garden?

Home gardeners and small-scale farmers should wait for a field monitoring team to help them, or for further instructions from local and state agriculture and health agencies.

Home-grown produce should be tested for radioactive contamination before it is consumed. Checking for contamination at home gardens and small-scale farms may not begin for weeks after the emergency.

It is likely that the radioactive fallout has contaminated the ground and any crops that were planted.

Listen for instructions from state and local officials and responders regarding food safety.

Is my pet's food safe?

Just like our food, if pet food is sealed, it should be safe to consume.

If the outside of the can or package appears to have dust or debris on it, rinse the closed item with tap water or wipe with a disposable damp cloth.

What are the options for evacuation and sheltering my pets?

Terrorism

While pets are accepted at some facilities, for public health reasons, many large-scale emergency shelters cannot accept pets.

We understand that for many of you, your pets represent members of your family and designated mass shelters will make every attempt to help your pets.

Please understand, however, that preserving and protecting human life takes priority.

If you are evacuating with a pet:

If possible and easily accessible, bring a cage, leash, food and veterinary records, including immunization records.

Understand that pets will not be allowed into any shelter until they are thoroughly washed to remove any radioactive material.

There are several sheltering options for your pet that may be available.

Stay with friends or relatives outside the evacuation area who will house both you and your pet.

You can try locating a motel or hotel that will allow you to stay with your pet.

Listen to local radio/news broadcasts for information on pet evacuation and the locations of available pet shelters

What should I do with my crops?

While lifesaving is still our primary focus as this point, we understand that you are concerned about your crops, which are your livelihood.

Similar to the advice on eating food from a garden, we are asking farmers in [AREA] to not eat or distribute their crops until we get monitoring and sampling results back.

We know that this is frustrating, and state and local officials will keep you informed as results come in.

What should I do with livestock?

If you are being asked to stay inside or evacuate, follow the instructions of state and local officials.

These instructions are for your safety.

If you are outside the shelter and evacuation areas, there are a few simple steps you can take for the safety of your livestock:

- Shelter you livestock.
- Wash your livestock thoroughly with soap and water.
- Use stored feed and cover water.

Terrorism

- Move lactating dairy cows, beef cattle, swine and other meat-producing livestock to shelters and give them only stored feed and water from protected source.
- Disconnect storage containers which are supplied by runoff from their sources to prevent contamination.
- Hay or silage stored outside without a cover can be used for feed if the top foot of the loose stack or the top layer from the bale is removed. Care should be taken in removing the top layer to avoid contaminating other parts. Cover uncontaminated area with a new tarp or plastic cover to avoid further contamination.

As we get monitoring and sampling data we will be able to provide additional instructions.

If you were outside at the time of the explosion:

Protect yourself as much as possible from inhaling radioactive materials by covering your mouth and nose with a scarf, handkerchief or other cloth until officials announce that the fallout cloud has passed.

Seek shelter indoors immediately in the nearest undamaged building.

If appropriate shelter is not available, move as rapidly as is safe upwind and away from the location of the explosive blast. Then, seek appropriate shelter as soon as possible.

If walking to a shelter, don't forget an emergency kit.

Right before going to a sheltered area, remove your outer layer of clothing to remove any radioactive material. Follow the decontamination procedures below.

Remember, you cannot see, feel, smell or taste radiation, so you may not know if you have been exposed.

What should I do if I am on a boat and near the impacted area?

If you are in a boat on the water, return to a marina or boat landing and find a building for shelter immediately.

Boats do not provide adequate protection from radioactive material.

If another blast occurs:

- Turn away and close and cover your eyes to prevent damage to your sight.
- Drop to the ground face down and place your hands under your body.
- Remain flat until the heat and two shock waves have passed (The first wave is the air being pushed away from the explosion; the second is the air being sucked back in to fill the void.). If the explosion is some distance away, it could take 30 seconds or more for the blast waves to hit.
- Don't touch unusual metal debris or glowing objects.

Terrorism

Federal, state and local partners are monitoring the air across the country to determine the location and levels of radioactive material in the air.

Weather will be a major factor in determining where the radioactive material goes because it is carried by the wind as it moves through the atmosphere and can be brought to the ground by precipitation.

We will work with federal and local officials to release the monitoring information as soon as possible.

Remember the following when returning home:

- Keep listening to radio and television broadcasts for news about what to do, where to go and places to avoid.
- Stay away from damaged areas. Stay away from areas marked “radiation hazard” or “HAZMAT.” Remember that radiation cannot be seen, smelled or otherwise detected by human senses.
- Officials will be sampling the contamination levels in your area. Do not consume produce from home gardens until officials indicate it is safe to do so.
- Officials will provide instructions about what to do with items left outside (lawn furniture, toys, etc).

Situation Update

What happened?

- We can confirm there was a [nuclear/radiological incident] at [LOCATION] in [CITY].
- Please be aware that radiation cannot be seen.
- If you are outside of the blast zone, your surroundings may appear normal; however, danger may still exist.
- We are working to define the areas at high risk for fallout.
- Please continue to listen and follow specific instructions.
- We are responding to this devastating event.
- With the limited amount of information we have at this time, we are monitoring the path of the radioactive plume and the radioactive fallout from the explosion.
- Based on this information, emergency responders are assessing and identifying dangerous areas.
- Rescue, evacuation and recovery efforts are underway.
- As the situation evolves you will be kept fully informed. Stay tuned to local radio or television broadcasts or a NOAA all hazards alert radio.
- Radiation levels will continue to decrease over time.
- As the situation changes, those of you who have been instructed to stay inside may be asked to leave the area; but not until it’s appropriate to do so.
- If you are asked to leave, do so quickly and follow specific instructions.

How many people were harmed?

Terrorism

- We know there were many people harmed in this attack, but we won't speculate on the specific number.
- We also know that there are many people out there who need our help.
- We are focused on getting them that help as quickly and safely as possible.

How many people have died?

- While we won't speculate on the number of casualties, we know the nation is mourning.
- Now we must focus on saving as many lives as possible.

What was the location of the bomb when it exploded?

- We know that the detonation took place in [CITY]
- We have experts working on identifying the exact location of the detonation.
- We know that people in that area are in immediate danger from radiation exposure.
- We need people in this area to get inside and stay inside until told otherwise.
- This may feel like it goes against the natural instinct to evacuate from a dangerous area; however, health risks from radiation exposure can be greatly reduced by putting building walls, brick, concrete or soil between you and the radiation outside.
- This can help save your life.

When did the detonation occur?

- The bomb exploded at [TIME].
- It is important to note that radiation levels are extremely dangerous after a nuclear detonation but the levels reduce rapidly, in just hours to a few days.
- Follow the instructions of state and local officials and responders. These instructions are for your safety.
- Stay tuned to TV and radio for instructions.

How big was the explosion?

- It is too early to know the size of the explosion.
- However, this is a very serious radiological disaster.
- At this time we are focusing on saving as many lives as possible.

What are the radioactive materials involved in the attack?

- Radiation levels are extremely dangerous after a nuclear detonation but the levels reduce rapidly, in just hours to a few days.
- Please follow instructions from responders.
- Whether you are told to go inside or evacuate, these instructions are meant to limit your exposure to high levels of radiation and reduce your risk of contamination.

Terrorism

- If you are told to shelter, go to the basement or the center of the middle floor of a multi-story building (for example, the center of the 5th floor of a 10-story building or the 15th floor of a 30-story building).
- This may feel like it goes against your natural instinct to evacuate from a dangerous area; however, health risks from radiation exposure can be greatly reduced by:
 - Putting building walls, brick, concrete or soil between you and the radioactive material outside, and
 - Increasing the distance between you and the exterior walls, roofs and ground, where radioactive material is settling.

Where is the fallout going?

- Based on the limited information we have at this time, the radioactive plume appears to be moving from [CITY] in a [DIRECTION] towards [AREA].
- People in the path of the radioactive plume may be asked to take protective measures.
- Please follow instructions from responders.
- Whether you are told to seek shelter or evacuate, these instructions are meant to limit your exposure to high levels of radiation and reduce your risk of contamination.
- If you are told to shelter, go to the basement or the center of the middle floor a multi story building (for example the center of the 5th floor of a 10- story building or 15th floor of a 30-story building).
- This may feel like it goes against your natural instinct to evacuate from a dangerous area; however, health risks from radiation exposure can be greatly reduced by:
- Putting building walls, brick, concrete or soil between you and the radioactive material outside, and
- Increasing the distance between you and the exterior walls, roofs and ground, where radioactive material is settling.
- The further away you are from the point of the explosion, the less airborne radioactive material will reach your area.
- The larger particles, containing greater amounts of radioactive material, fall to the ground in the area closest to the explosion.

Where is the perimeter of the hot zone? Where is the radioactive material located?

- Based on the limited information we have at this time, the radioactive plume appears to be moving from [CITY] in a [DIRECTION] towards [AREA].
- We are monitoring to determine the location of the radioactive fallout.
- We are working to get people out of the areas with highest levels radiation exposure.
- In some cases this means we are asking people to stay inside to wait for some of the most dangerous radiation levels to reduce, which takes hours to a few days.
- In these cases they will be safer staying inside than evacuating outside.

Terrorism

- They will be instructed to leave the area as soon as the risk from exposure decreases.
- Responders are working to save lives as close to the impacted area as possible.
- We need to keep our responders safe so they can do their jobs.

What can we expect next?

- Expect things to keep changing.
- For the time being, focus will continue to be on assessing the risks to the public in and around the affected area and providing food, shelter and medical attention to those in need.
- We are gathering more information on everything including structural damage, radiation exposure, location of the radioactive plume and how quickly the radioactive material is disappearing.
- State and local officials may issue further instructions with additional actions for people to take to protect themselves.
- There are ways we can all support the on-going effort:
 - Care for those around you. This incident has directly impacted people across the state.
 - If possible, please support the American Red Cross relief efforts by donating time, blood or money. More information on how you can help is available on www.redcross.org.
 - Contact your local community support and volunteer groups to see how you can help support those in need [Provide links to volunteer sites].

How long will it be before the situation returns to normal?

- We all want to return to normal, which is why so many people from across the country, from so many communities, are helping to respond to this attack.
- As we found after 9/11, normal after the attack may not look like normal before the attack.
- We, as a city and a nation, will recover from this tragedy, but recovery is a process that will not occur overnight.
- A long, difficult cleanup awaits and the most important goal of the cleanup is to keep people safe.

Is there concern about a second nuclear detonation?

- It would be irresponsible not to be concerned.
- This is why we are taking all available security precautions to protect the American people.
- As a state, during this time of crisis, we must continue to be alert.
- If you see anything suspicious please contact the *FBI at [phone number]*.
- Stay tuned to broadcasts for important updates.
- Things will change and you will be kept fully informed. Stay tuned to local radio or television broadcast or listen to an NOAA all-hazards alert radio.

Is the situation under control?

Terrorism

- Federal, state and local governments are coordinating closely to respond in the most effective manner.
- We have radiation specialists working closely with responders to help maximize our ability to respond while keeping our responders safe.

What effects will this have on the people involved?

- Assessment of the scope and magnitude of the incident is ongoing.
- Please follow the instructions of responders.
- These instructions are based on the best information we have right now.
- These instructions may change as we gather more information.
- These instructions are for your safety.

What are you doing to protect people from harm?

- Public safety is our highest priority.
- We are working closely with the other responding agencies at the federal, state and local levels.
- We are working quickly but carefully to assess and mitigate the dangers.
- Follow the instruction from state and local officials and responders.
- These instructions are based off the best information we have right now and may be different for different areas.
- These instructions may change as we gather more information.
- These instructions are for your safety.
- If you are in the area impacted by the explosion, stay inside until you are told otherwise by authorities.
- Building walls, brick, concrete or soil will help protect you from the radioactive material outside.

Is there an immediate danger?

- If you are being told to stay inside, it is because exposure to the radioactive material outside is very dangerous.
- Building walls, brick, concrete or soil can help protect you from the harmful radiation exposure.
- Stay inside until you are told otherwise by local authorities.
- Different areas may be given different instructions.
- If you are given any instruction by local or state officials or responders it is for your safety.

When will it be safe to return to the area?

- A long, difficult cleanup awaits us and the most important goal of the cleanup is to keep people safe.
- First and foremost, if you have been evacuated, do not return until you are told it is safe to do so by authorities.

Terrorism

- Please do not put yourself in danger by attempting to return early.
- Attempting to return early will divert responders' efforts away from those who need immediate assistance.
- Federal, state and local partners are collecting information about the impacted areas to determine the extent and levels of contamination.
- Until this is done we cannot predict when people can return to the area.
- Local and state decision-makers will use the information we collect to determine appropriate safety measures for people in their jurisdictions.

Are people out of danger? Are people safe?

- If you are being told to stay inside, it is because exposure to the radioactive material outside is very dangerous.
- Building walls, brick, concrete or soil can help protect you from the harmful radiation exposure.
- Stay inside until you are told otherwise by local authorities.
- Different areas may be given different instructions.
- If you are given any instruction by local or state officials it is for your safety.

How do I learn about the safety of my family and friends?

- This is an overwhelming situation that is affecting many people.
- At this time, responders are in the process of gathering and organizing all vital information available.
- We encourage you to seek additional information and/or counseling services at [LIST ORGANIZATIONS OR LOCATIONS.].
- We are setting up registries at evacuation centers.

Why are some people being told to stay inside and some people being evacuated?

- This guidance is based on the best information we have right now and are intended to limit radiation exposure and provide protection.
- These decisions are based on factors, such as direction of wind, size of the detonation, how quickly radioactive material disappears and damage to roads and structures along evacuation routes.
- As we gather more information and as the situation changes, protective actions may change.
- Follow the instructions of state and local officials and responders.
- These instructions are for your safety.

How do you decide when to take protective actions, specifically evacuate or shelter (go inside and stay inside)?

Terrorism

- The decision to shelter (go inside and stay inside) or evacuate is made by state and local officials with the support of radiation specialists.
- Officials work with experts to determine the actions that will save the most lives and keep exposure to public as low as possible.
- These decisions are based on radiation science and the best information we have at the time.
- Stay tuned because instructions may change.
- Radiation levels are extremely dangerous after a nuclear detonation but the levels reduce rapidly, in just hours to a few days.
- During the time with the highest radiation levels it is safest to stay inside, sheltered away from the material outside.
- As radiation levels decrease, safety measures may change.
- People in the path of the radioactive plume may also be asked to take protective measures.

Exposure vs. Contamination and Decontamination

An individual is exposed to radioactive material if he/she is close enough to be harmed by it. An individual is contaminated by radioactive material if he/she has radioactive material either in or on his/her body.

Like getting an x-ray at a hospital, the individual is exposed to the x-rays, but cannot pass that exposure on to anyone else after the procedure is finished. Someone who has been exposed to radioactive material does not become radioactive. He/she cannot pass on that radiation to anyone else.

However, a person who is contaminated by radioactive material has radioactive material in or on his/her body. He/she can expose other people. An individual can become contaminated by ingesting or inhaling radioactive materials or walking through contaminated fallout.

If an individual is contaminated he/she continuing to be exposed and expose others to radioactive material and should be decontaminated as soon as possible.

What is the difference between radioactive exposure and contamination?

- Exposure occurs when radiation interacts with the body.
- Exposure can be long-term at low levels, such as that from background radiation (the radiation that is in the environment all the time).
- Exposure can be short-term at a high dose, such as that from a major accident, diagnostic medical imaging or radiation therapy.
- Health effects depend on the strength and length of the exposure.
- You can be exposed to radiation without being contaminated.
- Having a medical x-ray is an example of being exposed but not contaminated.

Terrorism

- During an x-ray, you are exposed to radiation but you don't have radioactive material on your skin or clothing.
- External contamination occurs when radioactive material settles on a surface.
- That surface could be your body or clothing, a structure or an object.
- Contamination also can be internal when radioactive materials are swallowed, inhaled, injected or absorbed.
- If a person is contaminated with radioactive material, he/she is being exposed to radiation.

What is radiation exposure and how does it occur?

- Exposure occurs when radiation interacts with the body.
- Exposure can be long-term at low levels, such as that from background radiation (the radiation that is in the environment all the time).
- Exposure can be short-term at a high dose, such as that from a major accident, diagnostic medical imaging or radiation therapy.
- Health effects depend on the strength and length of the exposure.
- Exposure can be from radioactive material inside the body.
- We receive exposure from radioactive material taken in through eating, inhalation, injection or absorption.
- Our organs and cells can be exposed to radiation from these materials.
- Different kinds of radioactive materials may concentrate in and affect different organs.
- Exposure can be from radioactive material outside the body.
- Radiation from radioactive materials outside the body can interact with the body.
- Sources include background radiation and procedures such as x-rays.
- Sources can be from an accidental release of radiation or from intentional acts of aggression.

What is radioactive contamination?

- Contamination refers to particles of radioactive material settling on a surface - like the way dust settles on a surface.
- That could be on your body or clothing, including your shoes, on a structure or on an object like a purse or a car.
- During a radiological emergency, a person or thing can leave the area of a release of radioactive material and still be contaminated.
- Radioactive contamination can spread in the same way that dust or mud can be tracked into the home or spread to another person or object.
- While radioactive contamination can spread through physical contact, radiation is not infectious or contagious like some diseases.
- It can be easily removed.
- If you are or were in a contaminated area, listen for public announcements on how to decontaminate (remove the contamination).

Terrorism

How long do I have to remove contamination from my body?

- Remove contamination as soon as possible to reduce the chance of harm.

Can radiation be spread from person to person?

- Radioactive dust that produces the radiation can be spread in the same way that regular dust or mud can be tracked into the home or by touching another person or object.
- However, radiation is not contagious like some infectious diseases.

What is decontamination?

- Decontamination is the removal of particles of radioactive material from people, clothing, pets or objects, usually by simple washing.
- Decontamination may be necessary after a radiological release.
- Radioactive particles (fallout) can settle on clothes, skin, hair, buildings and objects.
- Decontaminating yourself will reduce your exposure to harmful radioactive particles.
- The longer the particles stay on your skin, the more harm they can do.
- Decontamination may be the only step needed after a radiological emergency.
- Immediate decontamination is recommended if you or your possessions have become contaminated during a radiological emergency.
- Decontamination centers may be set up to help with decontamination and to prevent the spread of contamination.
- Follow the directions of the emergency responders to ensure effective decontamination.

What should I do if I think I may have been contaminated?

- If you think you have been contaminated, the best thing to do is take a shower. If the safety of running water is unknown, do NOT bathe in it. Use stored water, wet wipes, safe water from your water heater and toilet tank to wash with.
- Do not touch other people. A person can spread the radioactive material if it is on their skin, clothes or hair. People can also spread radioactive material if it is in their body fluids, such as vomit. If someone comes into contact with radiation in these ways, they may become ill.
- Remove your clothing (being careful not to inhale contamination or get it into your mouth or eyes); put it in a plastic bag and place it outside or in an out-of-the-way area.
- Remove your outer layer of clothing including shoes or boots.
- When removing clothing, do not pull clothes over your head. If necessary, cut clothes off.
- Cover your mouth and nose with a cloth while disrobing to prevent accidentally inhaling or ingesting radioactive material.
- Shower using lukewarm water and lots of soap and water your hair. Do not put conditioner on your hair.
- Be careful not to scratch the skin.

Terrorism

- If you have water but cannot shower, remove the outer layer of clothing and wash exposed areas.
- This can remove up to 90% of the contamination.
- Place the clothing in a plastic bag; leave it outside or in an out-of-the-way area.
- When dusting off your hair or clothing, stand away from other people and be careful not to breathe in the dust or get it in your mouth or eyes.
- Wash exposed skin using lots of soap and lukewarm water.
- If you don't have access to water, use one of the following:
 - It is best to clean off with a moist towelette, wet nap or baby wipe.
 - Otherwise, clean off with a dry paper towel or cloth.

How do I decontaminate my pet?

- Radioactive fallout is particulate and could contaminate people and pets as dust particles.
- Contact with and movement of contaminated animals might expose individuals and items in the pathway to the contaminant.
- If you must decontaminate your pet, the suggested method is to:
 - Bathe your pet thoroughly with shampoo and water and rinse completely.
 - Wear waterproof gloves, an apron and if possible, a dust mask to protect you from (further) contamination, including inhaling fallout dust.
 - Follow local jurisdictional guidance on the disposal of bath water and items coming into contact with contaminants.

What can I do to decontaminate my home?

- You need to get information from emergency responders or local officials on whether you need to decontaminate your home.
- If you need to decontaminate your home, get guidance from emergency responders or local officials.
- This will likely contain information on wearing protective clothing when cleaning.
- There are likely to be special instructions for cleaning the inside of your home
- There are likely to be instructions for cleaning the outside of your home.

Infrastructure Damage

How much radiation-related damage has occurred?

- The extent of the damage and contamination is currently being assessed.
- Complete assessment will take time.

What is the initial assessment of damage to the city that was attacked?

Terrorism

- This attack caused major infrastructure damage in the [AREA] (As appropriate, provide updates on the status of power outages, communications outages, water systems, sewage systems, road and bridge conditions.).
- We will not be able to do a full assessment until it is safe for experts to enter the area.
- It may take days, months and in some cases, years to get systems fully functional again.
- We are taking the following steps to bring damaged systems back on line:
 - (Provide information on steps being taken to bring systems back up online)

What are the effects on national infrastructure?

- At this time we don't know if there will be any long-lasting effects on national infrastructure.
- The attack caused major damage in the [AREA] (As appropriate, provide updates on the status of power outages, communications outages, water systems, sewage systems, road and bridge conditions.) (Provide information on steps being taken to bring systems back up online.

Emergency Response Capabilities

What is being done in response to what has happened?

- It is still early in the response, and our focus is on saving lives.
- Specialized teams are assessing the nature and extent of the damage and radioactive contamination.
- The federal, state and local responders are coordinating closely to respond as effectively as possible.
- State and local officials have issued safety instructions.
- We are asking people to follow these instructions and stay tuned.
- Instructions may change as we get more information.
- These instructions are for your safety.

Who is responsible for managing the response?

- With an incident of this size, it is a joint effort among local, state and federal responders.
- We are coordinating to maximize our assets and respond as quickly and safely as possible.

How are state and local personnel resources responding?

- Public safety is our highest priority.
- We are working closely with the other responding agencies at the federal, state and local levels.
- We are working quickly but carefully to assess and mitigate the dangers.
- Follow the instruction from state and local officials and responders.
- These instructions are based off the best information we have right now and may be different for different areas.
- These instructions may change as we gather more information.

Terrorism

- These instructions are for your safety.
- If you are in the area impacted by the explosion, stay inside until you are told otherwise by authorities.
- Building walls, brick, concrete or soil will help protect you from the radioactive material outside.

What is the federal government doing to respond?

- The federal government is operating and doing everything possible to help the nation get through this.
- The federal, state and local responders are coordinating closely to respond as effectively as possible.
- Across the county, federal responders have deployed and officials continue to coordinate resources.
- The federal government is following existing emergency response plans for maximizing resources, coordinating across all levels of government and ultimately helping those in need.

When will it be safe for response personnel to enter the affected area?

- Responders are working to save lives as close to the impacted area as possible.
- We need to keep our responders safe so they can do their job.
- We will keep you updated on the situation.

Which areas are safe for first responders to enter?

- For their protection, emergency responders may enter contaminated areas for only a limited amount of time.
- Guidelines established by experts in the effects of radiation on the human body are used by emergency responders to determine where they can go and how long they should stay.
- Special devices measure levels of radioactivity in various areas so emergency responders can determine if and how long they should stay in contaminated areas.

Is there a body of experts that deals with the impact of a nuclear attack?

- We have experts that specialize in the effects of radiation on the human body and the environment.
- Their knowledge will help us understand the potential impacts of this nuclear detonation.
- Radiation experts are working closely with state and local officials as they make health and safety decisions.

How soon will a map displaying the areas affected be available?

- Initial maps showing the areas where the radioactive dust is going and locations where actions need to be taken are being developed.

Terrorism

- The initial maps are based on very limited information.
- Until we have more information, the maps are based on best guesses.
- As we gather actual monitoring and sampling data and apply it to the map, the map may look very different.
- The maps will be updated and shared as more information is obtained.

Environmental Monitoring

How do you monitor/detect radiation?

- Specialized instruments are used to detect radiation.
- There is no one detector that measures all types of radiation.
- There are specialized emergency responders who are trained and skilled using these instruments.

How do you distinguish between background radiation and radiation from the incident?

- Distinguishing between background radiation and radiation from a specific event is not easy.
- In some areas we have historical, baseline data on background radiation levels.
- In a situation like a nuclear detonation, there will be areas where radiation levels are clearly above background levels.
- As we gather more information, our radiation scientists will help identify radioactive material from this event.

Is there a plan to let people know what areas are contaminated and which ones are not?

- Monitoring and sampling is being conducted to confirm the locations of the affected and unaffected areas.
- An extensive monitoring and sampling plan will be developed.
- It is important to identify areas that have not been contaminated for use in future planning.

What are the environmental impacts of a nuclear detonation?

- Federal, state and local partners are taking environmental samples of radiological contamination, as well as other environmental contamination, to get a better picture of the extent of the environmental impacts.
- Until we figure out the extent of the contamination we won't know what the environmental impacts are from this attack.

Population Monitoring

Where can I go to be checked for radiation contamination or exposure?

- Tune in to your local TV news or radio for more information about the situation and specific instructions.
- Follow instructions of your state and local officials and responders.

Terrorism

- Your local officials may set up community reception centers within days after the explosion to check people for radiation contamination and assist them with needed services.

How do people know if they have been exposed?

- Tune in to your local TV news or radio station for more information about the situation and specific instructions.
- Emergency responders will monitor the levels of radiation and state and local government officials will use this information to determine areas of concern.
- We will keep you informed as we get more information.

How are you tracking people who have been exposed?

- Tune in to your local TV news or radio for more information about the situation and specific instructions.
- Your local officials may set up community reception centers within days after the blast to check people for radiation contamination and assist them with needed services.

Why are you tracking people who have been exposed?

- The registry allows us to follow up with people who need immediate health care and allows us to do long-term health monitoring for individuals who have been exposed to radiation from detonation.
- Being part of the registry does not imply any form of future compensation.
- The registry is for tracking purposes only.

International Interest

How will this impact our import/export relationships with other countries?

- Right now we are focusing on saving lives.
- We will not know the impact on commerce until we fully assess the radiation contamination and the extent of damage caused by the nuclear detonation.

Are we tracking the plume as it moves around the Earth?

- We are responding to this devastating event and monitoring the path of the radioactive plume and the radioactive fallout from the explosion.
- Right now, we are concerned about identifying areas of concern for potential harmful radiation exposures and contaminated areas.
- As the plume moves and radioactive material falls to the ground, the air becomes less hazardous.

Will this impact air travel?

- Until we have more information, expect air travel to be restricted.

Terrorism

- This is to keep pilots and passengers safe.
- It also keeps the air space free for air monitoring and the continued investigation.

Will this impact use of navigable waterways?

- Until we have more information, expect the use of navigable waterways to be restricted.
- This is to keep mariners, other waterway users, and passengers safe.
- It also keeps the waterways free for response and recovery activities and the continued investigation.

Where did the bomb come from? Are you working with other countries to track down those responsible for the attack?

- The FBI is leading a coordinated criminal investigation with the support of its law enforcement partners and other federal, state and local agencies.
- The investigation is in its early stages and the information we can provide now is limited.
- Early indications are that this was a deliberate attack using an improvised nuclear device.
- The United States government is using all available means to determine who is responsible for this attack.

What are the potential economic impacts?

- This attack has affected both the area impacted by the explosion as well as people across the nation and across the world.
- We know that there has been extreme damage to buildings and infrastructure in the blast area.
- We are working to gather more information to understand the full impact.

Roles and Responsibilities

Who is in charge?

- The federal government is dedicating their assets to support the state and local governments and responders who are at the forefront of the response.
- The Department of Homeland Security is leading the federal response.
- The FBI is leading the coordinated criminal investigation.
- The federal, state and local responders are coordinating closely to respond as effectively as possible.
- Safety instructions have been given by state and local officials and responders.
- We are asking people to follow these instructions and stay tuned.
- Instructions may change as we get more information.
- These instructions are for your safety.

How are you coordinating the response?

Terrorism

- We are using our existing emergency response plans to coordinate the response and keep communication flowing among all parties.
- The state and local governments are at the forefront of the response.
- The federal government is dedicating their assets to support the state and local governments and responders.

Radiation and Improvised Nuclear Device (IND) Overview

What is an Improvised Nuclear Device (IND)?

- An IND is a nuclear explosive made from stolen or illegally produced nuclear material.
- An IND creates an extremely destructive [nuclear/radiological incident] with very high radiation levels.
- The blast, heat and radiation from an IND detonation can cause massive casualties and significant damage to infrastructure.
- People in areas not affected by the explosion could be exposed to radiological fallout, which are radioactive particles that settle to the ground after the explosion.
- Close to the detonation radiation levels can cause sickness and even death without the adequate shelter.
- Areas hundreds of miles downwind are susceptible to lower levels of radioactive fallout.
- Radiation levels from fallout decrease rapidly as various radioactive materials disappear.
- After an IND explosion, it is most important to follow instructions from your state and local officials and first responders.
- You may be asked to evacuate or seek shelter (go inside and stay inside).
- These decisions will be influenced by a number of factors including weather, traffic, damage to buildings and roadways, levels of radioactivity and movement of the radioactive plume.

What is a nuclear explosion?

- A nuclear explosion involves a blast that produces an intense wave of heat, light, air pressure and radiation.
- When such an explosive device detonates, a large fireball is created. Everything inside this fireball vaporizes and creates a mushroom cloud.
- As the fireball cools, it condenses, forms particles and falls back to the earth; this is known as fallout.
- Fallout is dangerous because it contains radioactive particles.
- The radioactive particles in fallout can be carried long distances by wind currents before they fall back to the earth.
- It is important to note that radiation levels from fallout decrease rapidly.
- Radiation levels are extremely dangerous after a nuclear detonation but the levels reduce rapidly, in just hours to a few days.
- This does not mean that the material is not harmful.

Terrorism

- Scientists who specialize in radiation safety are helping us determine the best action to limit radiation exposure and protect from contamination.
- Follow instructions from state and local officials and responders. These instructions are for your safety.

Hazards of nuclear devices

The extent, nature and arrival time of these hazards are difficult to predict. The geographical dispersion of hazard effects will be defined by the following:

- Size of the device. A more powerful bomb will produce more distant effects.
- Height above the ground the device was detonated. This will determine the extent of blast effects.
- Nature of the surface beneath the explosion. Some materials are more likely to become radioactive and airborne than others. Flat areas are more susceptible to blast effects.
- Existing meteorological conditions. Wind speed and direction will affect arrival time of fallout; precipitation may wash fallout from the atmosphere.

How far will the radioactive material travel?

- The radioactive plume will go for a considerable distance.
- As it moves within the upper air flow, radioactive particles will be deposited along the path.
- This is referred to as fallout.
- It is important to note that the further away you are from the point of the explosion, the less airborne radioactive material will reach your area.
- The larger particles, containing greater amounts of radioactive material, fall to the ground in the area closest to the explosion.
- People within the path of plume should pay attention to local and state officials and responders for instructions.

How will rain affect the fallout?

- Fallout, which is debris rose by the blast, will be rinsed out of the atmosphere by precipitation of any type, such as rain or snow.

What is radiation?

- Radiation is the release of energy from unstable atoms in the form of particles or waves.
- Everything is made of atoms.
- Some atoms are unstable and release energy to become stable.
- These atoms are radioactive.
- Radiation can be detected using special equipment.

Terrorism

- People cannot see, smell, hear, feel or taste radiation.
- With the correct instruments, radiation is easily detectable.
- Radiation affects people by depositing energy in body tissue.
- When an incident occurs, scientists can predict how much radiation energy a person might absorb.
- There is a direct relationship between how much radiation energy a person absorbs (dose) and potential health effects.
- Unnecessary radiation exposure should be avoided.

What is ionizing radiation?

- Ionizing radiation can remove electrons from atoms.
- The removal of electrons can begin chemical processes that change materials.
- In living organisms, this could alter DNA or other structures in the cells.
- Unnecessary exposure to ionizing radiation should be avoided.

What is the difference between ionizing and non-ionizing radiation?

- Ionizing radiation can remove electrons from atoms.
- The removal of electrons can begin chemical processes that change materials.
- In living organisms, this could alter DNA or other structures in the cells.
- When we talk about radiation from a nuclear detonation, we are talking about ionizing radiation.
- Non-ionizing radiation does not have enough energy to remove electrons from atoms.
- Examples of non-ionizing radiation include microwaves, radio waves, visible light and sunlight.

What is the difference between alpha, beta, and gamma radiation? How can you protect yourself?

- There are three major types of radiation:
 - Alpha particles:
 - Alpha particles cannot penetrate most matter. A piece of paper or outer layers of skin is sufficient to stop alpha particles.
 - Radioactive material that emits alpha particles (alpha emitters) can be very harmful when inhaled, swallowed or absorbed into the bloodstream through wounds.
 - Beta particles:
 - Beta particles can be stopped by a layer of clothing or by a few millimeters of a substance such as aluminum.
 - Beta particles are capable of penetrating the skin and causing radiation damage, such as skin burns.
 - As with alpha emitters, beta emitters are most hazardous when they are inhaled or swallowed or absorbed into the bloodstream through wounds.

Terrorism

Neutrons: SPACING?

- Neutrons are particles and are very penetrating. Several feet of concrete or another material rich in hydrogen (i.e. water) are required to stop them.
- Neutrons are a radiation hazard for the entire body.
- Neutrons interact with tissue in the body and can make the body radioactive in some cases.
- Neutrons are only a hazard close to and during the initial blast.

Gamma rays and x-rays:

- Gamma rays are very penetrating. Several feet of concrete or a few inches of lead are required to stop gamma rays. X-rays are not as penetrating.
- Gamma rays are a radiation hazard for the entire body.
- While gamma rays can easily pass completely through the human body, some fraction of the energy will always be absorbed by body tissue.
- X-rays are very similar to gamma rays. Materials which stop gamma rays can stop x-rays.

What should we know about low levels of radiation?

- Radiation, from natural and man-made sources, is always around us. This is called background radiation.
- It is reasonable to assume that less radiation exposure is better.
- Scientific studies show that there is some risk from low levels of radiation.
- Take all reasonable precautions to reduce exposure.
- There are steps you can take to limit exposure.
- Similar to wearing a lead apron for a dental x-ray, getting inside a strong building or in a basement can provide shielding from radiation exposure.
- During an emergency, listen to state and local officials and responders for instructions.
- Advice given during emergencies is meant to limit exposure.

Radioactive fallout

Even if individuals are not close enough to the nuclear blast to be affected by the direct impacts, they may be affected by radioactive fallout. Any nuclear blast results in some fallout. Blasts that occur near the earth's surface create much greater amounts of fallout than blasts that occur at higher altitudes. This is because the tremendous heat produced from a nuclear blast causes an up-draft of air that forms the familiar mushroom cloud. When a blast occurs near the earth's surface, millions of vaporized dirt particles also are drawn into the cloud. As the heat diminishes, radioactive materials that have vaporized condense on the particles and fall back to Earth. The phenomenon is called radioactive fallout. This fallout material decays over a long period of time, and is the main source of residual nuclear radiation.

Terrorism

Fallout from a nuclear explosion may be carried by wind currents for hundreds of miles if the right conditions exist. Effects from even a small portable device exploded at ground level can be potentially deadly.

Nuclear radiation cannot be seen, smelled or otherwise detected by normal senses. Radiation can only be detected by radiation monitoring devices. This makes radiological emergencies different from other types of emergencies, such as floods or hurricanes. Monitoring can project the fallout arrival times, which will be announced through official warning channels. However, any increase in surface build-up of gritty dust and dirt should be a warning for taking protective measures.

How much radiation is safe? How much radiation is considered low risk?

- Scientific studies show that there is some risk from low levels of radiation.
- Radiation, from natural and man-made sources, is always around us. This is called background radiation.
- It is reasonable to assume that less radiation exposure is better.
- There are steps you can take to limit exposure.
- Similar to wearing a lead apron for a dental x-ray, getting inside a strong building or in a basement can provide shielding from radiation exposure.
- During an emergency, listen to state and local officials and responders for instructions.
- Advice given during emergencies is meant to limit exposure.

Who sets radiation exposure limits?

- It takes a large dose of radiation to cause immediate effects (i.e. acute radiation sickness).
- Federal agencies like the Environmental Protection Agency and the Food and Drug Administration and others provide guidance on levels of radiation that may warrant taking protective actions.
- Specialists from these and other agencies are advising state and local officials and emergency responders accordingly.
- It is important to act based on the safety instructions given by state and local officials and emergency responders.

What does background radiation mean?

- Background radiation is radiation that is always around us.
- Background radiation comes from natural sources such as rocks, soil and cosmic radiation from the sun.
- Background radiation may also include some man-made sources, such as fallout from weapons testing that occurred years ago.
- Everyone is exposed to background radiation.

Terrorism

- Exposure to background radiation varies across the country.
- This can be due to elevation – the higher up, the more exposure to cosmic radiation.
- It can be due to rock composition - some kinds of rocks contain more radioactive materials than others.
- It can be due to the uneven distribution of fallout from nuclear weapons testing and international incidents that released radioactive material.

What are rems and millirems? How are they measured?

- In the United States, we use a unit called a rem to measure how much radiation a person has absorbed, otherwise known as radiation dose.
- A millirem (mrem) is one thousandth of a rem.
- To put radiation absorption into perspective, the collective dose for cancer treatment patients who receive external beam radiotherapy (one of the most aggressive radiation cancer treatments) is approximately 40 rem (40,000 millirem).
- Scientists estimate that the average person in the United States receives a dose of about 620 millirem of radiation per year.
- Approximately 300 mrem per year is from natural, or background sources.
- Exposure from medical sources will vary based on the individual, but may account for an additional 320 mrem per year, averaged over a person's lifetime and the population.
- Scientists use complex tools to measure, analyze and calculate how much dose a person receives following a radiological incident.

Electromagnetic pulse:

In addition to other effects, a nuclear weapon detonated in or above the earth's atmosphere can create an electromagnetic pulse (EMP), a high-density electrical field. An EMP acts like a stroke of lightning but is stronger, faster and shorter. An EMP can seriously damage electronic devices connected to power sources or antennas. This includes communication systems, computers, electrical appliances and automobile or aircraft ignition systems. The damage could range from a minor interruption to actual burnout of components. Most electronic equipment within 1,000 miles of a high-altitude nuclear detonation could be affected. Battery-powered radios with short antennas generally would not be affected. Although an EMP is unlikely to harm most people, it could harm those with pacemakers or other implanted electronic devices.

Health Effects of Radiation Exposure

Radioactive material has been detected outside the areas where protective actions have been recommended or taken. What is the health impact of this contamination?

- Radiation, from natural and man-made sources, is always around us.

Terrorism

- This is called background radiation.
- We are monitoring and sampling to find areas where background radiation levels have been exceeded requiring that actions be taken to protect individuals from immediate health effects, such as radiation sickness, and limit potential long-term health effects, such as cancer.
- It takes a very large dose of radiation to cause immediate health effects, such as radiation sickness.
- If you have been asked to take a protective action it is because it is for your safety.

Does exposure to radiation present some risk?

- Radiation, from natural and man-made sources, is always around us. This is called background radiation.
- Scientific studies show that there is some risk from low levels of radiation.
- We always assume less radiation is better.
- There are steps you can take to limit exposure.
- In general, to limit exposure from a radioactive source decrease time around and increase distance and shielding from a radioactive source.
- During an emergency, listen to state and local officials and responders for instructions.
- Advice given during emergencies is meant to limit exposure.

Who sets radiation exposure limits?

- It takes a very large dose of radiation to cause immediate health effects, such as radiation sickness.
- Federal agencies like the Environmental Protection Agency and the Food and Drug Administration and others define levels of radiation that warrant protective actions.
- Radiation specialists from these and other agencies are advising state and local officials and emergency responders accordingly.
- Please listen and heed the safety instruction of state and local officials and emergency responders.

What are the health effects of radiation exposure?

- The health effects of radiation depend on the amount of radiation, type of radiation, the type of radioactive material and length of time a person is exposed to radiation.
- Seek medical attention immediately if you have these symptoms: skin burns, nausea and vomiting.
- There are some treatments available for people exposed to certain types of radioactive material.
- Local emergency workers and medical professionals will determine if medical treatments are needed and what kind of medical treatment to provide.

Does radiation cause cancer?

Terrorism

Cancer has been attributed to a number of causes:

- Radiation, often from natural radon.
- Exposure to chemicals, including some pesticides.
- Genetic disposition.
- Smoking.
- Even diet.
- Radiation from background and other routine sources is a minor contributor to our overall cancer risk.
- Cancer has been associated with high doses of radiation received over very short periods of time.
- The risk of radiation causing cancer increases with the level of exposure.
- During an emergency listen to local officials for instructions.
- Advice given during emergencies is meant to limit unnecessary exposure.
- Follow instructions to minimize exposure.

What type of radiation is most harmful?

- Radioactive materials that emit alpha and beta particles are most harmful when swallowed, inhaled, absorbed or injected.
- Alpha particles cannot penetrate intact skin; beta particles can penetrate skin only partially.
- Gamma and x-rays can pass through a person damaging cells in their path.
- Neutron radiation present during nuclear reactions is as penetrating as gamma rays.

Are certain populations more vulnerable to the effects of radiation than others?

- For all populations, we assume that less radiation is better.
- Radiation vulnerability is difficult to determine.
- Pregnant women, infants and young children are assumed to be more susceptible to the health effects of radiation exposure.
- The steps for reducing radiation exposure are the same for all populations.

How do I know if I have been exposed to radiation and what happens if I am?

- If you are near an incident, you may have been exposed to radiation and you may also be contaminated by radioactive material.
- You may not experience any immediate health effects.
- A very large dose of radiation may cause skin burns, nausea and vomiting.
- If you have these symptoms, seek medical attention immediately.

How is radiation exposure treated?

- Low-level radiation exposure may not cause symptoms or health effects or require treatment.

Terrorism

- The Centers for Disease Control and Prevention and the Radiation Emergency Assessment Center/Training Site are the federal leads on treatment of radiation exposure.
- Seek medical attention if you think that you were exposed to high levels of radiation.
- There are treatments available for people with radiation sickness.
- There are limited medical treatments available for internal (inside the body) radiation contamination.
- Local emergency workers and medical professionals will monitor (evaluate, check) the situation to determine if medical treatments are needed and what kind of medical treatment to provide.
- You can reduce radioactive contamination by washing with soap and water.
- Seek medical attention immediately if you have these symptoms: skin burns, nausea, and vomiting.

Should I take potassium iodide (KI)

- If radioactive iodine is present, then taking KI will help protect a person's thyroid gland from the radioactive iodine.
- Local emergency management officials will tell people when to take KI.
- If a nuclear incident occurs, officials will have to find out which radioactive substances are present before recommending that people take KI. If radioactive iodine is not present, then taking KI will not protect people.
- Taking KI will not protect people from other radioactive substances that may be present along with the radioactive iodine.

Am I at risk for radiation poisoning or sickness?

- Radiation sickness only occurs when a person is exposed to very high levels of radiation.
- If you were in the immediate area of a major incident, follow the directions of emergency responders
- If you experience skin burns, nausea and/or vomiting, seek medical attention immediately.

What is Acute Radiation Syndrome/Sickness (ARS)?

- ARS is an illness from short-term exposure to a large amount of radiation.
- You cannot get ARS from chronic long-term exposure to small amounts of radiation.
- The radiation must reach internal organs.
- Symptoms appear within minutes or days.
- It is important to know the signs and symptoms.
- Signs of ARS include skin burns, nausea or vomiting.
- The symptoms may subside and come back.
- ARS can lead to death.
- Seek medical attention immediately if you think you are suffering from ARS.

Terrorism

How do I know if I have Acute Radiation Syndrome/Sickness (ARS)?

- You can only get Acute Radiation Syndrome (ARS) from short-term exposure to a large amount of radiation.
- ARS occurs when most of the body was exposed to high levels of radiation.
- The radiation must reach internal organs.
- ARS only occurs in extreme circumstances.
- Initial symptoms may begin from minutes to days after exposure.
- Symptoms include skin burns, nausea and vomiting.
- These symptoms may come and go in the first few days.
- Symptoms may completely go away and the person may feel healthy.
- Additional symptoms can occur weeks and months after exposure.
- Loss of appetite, fatigue, fever, nausea, vomiting, diarrhea, seizures and/or a coma.
- There may also be skin damage.
- This stage of serious illness can last for months.

What do I do if I am pregnant?

- Tell emergency workers that you are pregnant so that they can check your health and the health of your baby.
- Call or visit your doctor or OB/GYN as soon as possible.

What do I do if I am a nursing mother?

- Some harmful substances can be passed through breast milk. If you are near an incident, you may have been exposed to radiation or radioactive contamination.
- If you think you have been contaminated by radioactive fallout, medical workers may tell you to use formula.
- Tell emergency workers that you are breastfeeding so they can tell you if it is safe to continue to breastfeed.

Bioterrorism

Bioterrorism

Preparing for a Bioterrorist Attack

A bioterrorism attack is the deliberate release of viruses, bacteria or other germs (agents) used to cause illness or death in people, animals or plants. These agents are typically found in nature, but it is possible that they could be changed to increase their ability to cause disease, make them resistant to current medicines or to increase their ability to be spread into the environment. Biological agents can be spread through the air, water or in food. Terrorists may use biological agents because they can be extremely difficult to detect and do not cause illness for several hours to several days. Some bioterrorism agents, like the smallpox virus, can be spread from person to person and some, like anthrax, cannot.

Bioterrorism categories: Alignment needed

Category A:

These high-priority agents include organisms or toxins that pose the highest risk to the public and national security because:

- They can be easily spread or transmitted from person to person.
- They result in high death rates and have the potential for major public health impact.
- They might cause public panic and social disruption.
- They require special action for public health preparedness.

Category B:

These agents are the second highest priority because:

- They are moderately easy to spread.
- They result in moderate illness rates and low death rates.
- They require specific enhancements of CDC's laboratory capacity and enhanced disease monitoring.

Category C:

These third highest priority agents include emerging pathogens that could be engineered for mass spread in the future because:

- They are easily available.
- They are easily produced and spread.
- They have potential for high morbidity and mortality rates and major health impact.

Bioterrorism

Make a kit:

- Water—one gallon per person, per day (3-day supply for evacuation, 2-week supply for home)
- Food—nonperishable, easy to prepare items (3-day supply for evacuation, 2-week supply for home)
- Flashlight
- Battery-powered or hand crank radio (NOAA Weather Radio, if possible)
- Extra batteries
- First aid kit
- Medications (7-day supply) and medical items
- Multipurpose tool
- Sanitation and personal hygiene items
- Copies of personal documents (medication list and pertinent medical information, proof of address, deed/lease to home, passports, birth certificates, insurance policies)
- Cell phones with chargers
- Family and emergency contact information
- Extra cash
- Emergency blanket
- Map(s) of the area

Remember to include things in your kit for special needs, children, pets and common disasters related to your area.

Create a Disaster Plan

Find out what could happen to you:

- Ask what types of disasters are most likely to happen. Request information on how to prepare for each.
- Learn about your community's warning signals: what they sound like and what you should do when you hear them.
- Ask about animal care after disaster. Animals other than service animals may not be allowed inside emergency shelters.
- Find out how to help elderly or disabled persons, if needed.
- Next, find out about the disaster plans at your workplace, your children's school or daycare center and other places where your family spends time.

Create a disaster plan:

Bioterrorism

Meet with your family and discuss why you need to prepare for disaster. Explain the dangers of fire, severe weather and earthquakes to children. Plan to share responsibilities and work together as a team.

Discuss the types of disasters that are most likely to happen. Explain what to do in each case.

Pick two places to meet:

1. Right outside your home in case of a sudden emergency, like a fire.
2. Outside your neighborhood in case you can't return home. Everyone must know the address and phone number.

Complete the checklist:

- Post emergency telephone numbers by phones (fire, police, ambulance, etc.).
- Teach children how and when to call 9-1-1 or your local Emergency Medical Services number for emergency help.
- Determine the best escape routes from your home. Find two ways out of each room.
- Find the safe spots in your home for each type of disaster.
- Show each family member how and when to turn off the water, gas and electricity at the main switches.
- Check if you have adequate insurance coverage.
- Teach each family member how to use the fire extinguisher and show them where it's kept.
- Install smoke detectors on each level of your home, especially near bedrooms.
- Conduct a home hazard hunt.
- Stock emergency supplies and assemble a disaster supplies kit.
- Take a Red Cross first aid and CPR class.

Practice your plan:

- Test your smoke detectors monthly and change the batteries at least once a year.
- Quiz your kids every six months so they remember what to do.
- Conduct fire and emergency evacuation drills.
- Replace stored water every three months and stored food every six months.

Bioterrorism

- Test and recharge your fire extinguisher(s) according to manufacturer's instructions.

Special Events

Special Events

Halloween Safety Tips

Halloween is a very unique and fun holiday for children. Safety needs to be the number one priority when it comes to October 31. To help parents and children have a safe and fun Halloween, the Indiana State Police offers the following safety tips:

The costume:

- Keep costumes short to prevent trips and falls.
- Try makeup instead of a mask. Masks often obstruct a child's vision and make tasks like crossing the street and going up and down stairs dangerous.
- Make sure children wear light colors or put reflective tape on their costumes.
- Remember to dress appropriately for the weather. Halloweens can be very cold or relatively warm.

Trick or treating:

- Make sure older children trick-or-treat with friends. Together, map out a safe route so parents know where they will be.
- Instruct children to stop only at familiar homes where the outside lights are on.
- Encourage children to trick-or-treat while it is still light out. If children are out after dark, make sure they have flashlights and travel on well lighted streets.
- Remind children not to enter the homes or cars of strangers.
- Walk on sidewalks rather than streets and be sure to look both ways before crossing the street and remember to cross at corners.
- Follow your community's trick-or-treating hours.
- Consider alternatives to traditional trick-or-treating. Many communities, schools, and churches offer child safe alternatives designed to keep children safely within parents' view. Some hospitals and schools allow children to trick-or-treat by going from room to room virtually eliminating the danger associated with walking on the street at after dark.

Treats:

Special Events

- Remind children not to eat any of their treats until they get home.
- Check out all treats at home in a well-lighted place.
- Only eat unopened candies and other treats that are in original wrappers. Remember to inspect fruits for anything suspicious.

Pool and Beach Safety

Summertime weather gets hot and beaches and pools are popular places to be. Families can have a great time playing in the water, but to ensure a fantastic, safe time it is important to understand water safety. Talk to your children about their safety by reminding them of these simple, safety steps:

- Swim in a supervised, marked area only when a lifeguard is present, and swim with others. Never swim alone.
- Enter the water feet first. Enter the water headfirst only when the area is clearly marked for diving and has no obstructions.
- Adults should never leave a child unobserved around water. Practice “reach supervision” by staying within an arm’s length of young children and weak swimmers while they are in and around the pool, lake or ocean.
- Take frequent breaks (about once an hour) where everyone gets out of the water, drinks water, reapplies sunscreen (SPF 15 or higher) and rests.
- Watch out for the “dangerous toos”: too tired, too cold, too far from safety, too much sun, too much strenuous activity.
- Post CPR instructions and directions to call 9-1-1 or your local emergency number in the pool area.
- Keep toys away from the pool when it is not in use. Toys can attract young children into the pool.
- If a child is missing, check the pool first. Go to the edge of the pool and scan the entire pool, bottom, and surface, and then the surround pool area.
- If you are caught in an ocean rip current, swim parallel to the shore until you are out of the current. Once you are free, turn and swim toward shore. If you cannot swim to the shore, float or tread water until you are free of the rip current and then head toward shore.

Special Events

Amusement Ride Safety

As the Indiana weather becomes more favorable with its warm weather and sunshine, Hoosier families begin to take more trips to local amusement parks. Before going to an amusement park, discuss with your friends and family amusement safety tips to prevent accidents and to avoid injuries. Amusement rides can be fun, exciting and safe when you follow these tips.

- Read posted rules and follow all height/age restrictions and verbal instructions issued by the ride operators. Remember to read and explain all the posted rules to your children before allowing them to ride.
- Keep all body parts (hands, arms, legs) inside the ride at all times. You should wear long hair tied back.
- Always use the safety equipment provided, such as seat belts, shoulder harnesses, lap bars, etc. If you believe a device is not working correctly or properly positioned, please ask your nearest ride operator for assistance.
- Remain in the ride until it comes to a complete stop and until you are told you may exit.
- Stop riding before you get excessively tired to avoid injuries or illnesses.
- Do not board a ride if you see broken parts, signs of improper maintenance or an inattentive operator. Follow your instincts; if something about a ride seems suspicious, do not ride it.
- Drink plenty of water while visiting an amusement facility, especially on a hot day. Wear comfortable clothing and shoes, take frequent breaks and check up on each other.
- Know your physical conditions and limitations. If you suspect that your health could be at risk for any reason, or you could aggravate a pre-existing condition of any kind by riding a ride and/or device, do not ride!

Fireworks Laws and Safety Tips

The Fourth of July holiday can bring Hoosiers together for a lot of fun, but can also bring injuries and property damage. Remember your Indiana fireworks laws and some safety tips to ensure a safe and worry-free holiday.

State firework laws say:

- Only individuals 18 years of age or older may purchase fireworks.

Special Events

- In general, on Memorial Day, Fourth of July, Labor Day and New Year's Eve, fireworks may be discharged from 9 a.m. to midnight. Any other day of the year, fireworks may be discharged from 9 a.m. to 11 p.m.
- Check with local officials about when you can discharge fireworks as local ordinances may further restrict usage.
- Fireworks may be discharged only on your property, the property of someone who has granted permission or at special discharge locations.
- The 5% public safety fee now assessed on the sale of fireworks funds the Indiana Disaster Relief Fund and the Indiana Firefighter Training System.
- Penalties are now in place for violation of Indiana's fireworks laws. Know the laws for your area and obey them!

Remember these fireworks safety tips:

- Never let children handle, play with or light any fireworks.
- Store fireworks in a cool, dry place away from the reach of children.
- Always purchase your fireworks from reliable, licensed fireworks dealers.
- Use a clear, open area and keep your audience a safe distance from the shooting site.
- Do not alter any fireworks device or make your own fireworks.
- Only light one firework item at a time and never attempt to re-light or fix dud fireworks.
- Have a fire extinguisher, water supply, hose or bucket of water nearby.
- Be cautious when lighting fireworks during times of strong wind. Fireworks can be very unpredictable.
- Never smoke while handling fireworks.
- Never aim, point or throw fireworks at another person.
- Use fireworks outdoors, never indoors.

Special Events

Protect Yourself and Hoosier Forests by Following These Campfire Safety Tips

Campfires are the nation's leading cause of children's camping injuries, and the primary catalyst for damaging forest fires. Indiana State Fire Marshal, James Greeson warns "It is important that all fires are extinguished properly and there is parental supervision around fires for children of all ages."

Campfire building may be safely undertaken if you practice proper burning techniques and safety measures to protect yourself and Indiana forests.

Below are a few basic fire safety tips from the Fire Marshal's Office, a division of the Indiana Department of Homeland Security (IDHS), and the Indiana Department of Natural Resources (DNR).

Prepare your fire site:

- Check the weather forecast. Weather fluctuations, such as sudden gusts of wind, could make debris burning spark a wildfire.
- At Indiana state parks, reservoirs and forest facilities, campfires are allowed only in designated areas, such as campfire rings and fire pits.
- A safe burning site will be far away from power lines, overhanging limbs, buildings, automobiles, equipment, rotten stumps, shrubs, dry grass and leaves. The fire will have a vertical clearance at least three times the height of the pile, as heat from the fire extends far past the actual flames that you see.
- The ground around the fire or burn site should be surrounded by gravel or mineral soil (dirt) for at least 10 feet in all directions. Keep the surrounding area watered down during the burn.
- Keep the fire in a contained unit such as a burn barrel, BBQ unit, hibachi or a small pit with rocks around it. Building a fire directly on the ground can allow the fire to spread underground through root systems or decaying material.

Safely start the fire

- When building a fire, start with dry twigs and small sticks. Add larger sticks as the fire builds up. Put the largest pieces of wood on last, pointing them toward the center of the fire and gradually push them into the flames.

Special Events

- Never use flammable liquids to ignite or keep your fire burning. This means avoid gasoline, diesel fuel, lighter fluid and other dangerous fuels.
- After lighting the fire do not discard the match until it is cold. Douse it with water to be sure.
- Keep campfires small and do not let them get out of hand. The suggested size is 2', X2', X2'.
- Stack extra firewood upwind and away from the fire.

Stay safe around fires:

- Do not allow children and pets near the campfire and never leave them unsupervised.
- Teach kids how to stop, drop and roll if their clothing catches fire. Have a fire extinguisher on hand for emergencies and teach children how to use it.
- Keep plenty of water nearby and have a shovel for throwing sand on the fire if it gets out of control.
- Never leave a campfire unattended. Even a small breeze could quickly cause the fire to spread. Remain with your fire until it is completely out.
- When extinguishing the fire, drown it with water. Make sure all embers, coals and sticks are wet. Move rocks, as there may be burning embers underneath. Stir the remains, add more water and stir again.
- If you do not have water, use dirt. Mix plenty of soil and sand with the embers. Continue adding and stirring until all material is cooled.
- Do not bury your coals, they can smolder and start to burn again.

Protect Indiana trees:

- The Emerald Ash Borer (EAB) is an insect responsible for killing 25 million ash trees in Indiana, Michigan and Ohio. You can help prevent the spread of invasive pathogens and insect species by using local firewood for campfires.
- All hardwood firewood from Ohio, Michigan, Illinois and EAB-quarantined counties in Indiana and Pennsylvania is banned from Indiana state parks, reservoirs and forest campgrounds. Banned firewood will be confiscated by gate attendants, so you should find out if your county is quarantined for EBA before you leave on your camping trip. Visit <http://www.in.gov/dnr/entomolo> and see the overview map of all quarantined sites in Indiana (Map accurate as of May 2009).

Special Events

- Bundled firewood purchased at a commercial store that bears a USDA stamp or Indiana state label indicating the firewood vendor has a federal or state compliance agreement, can be brought into state facilities.
- Never leave unused firewood behind at the campfire site.

School Safety

- When driving, pay attention and scan the entire area around you.
 - Look for kids playing near the street and slow down.
 - Children are often unpredictable and unaware of danger around them.
 - Slow down around children and other pedestrians.
 - Watch for people about to step off the curb at crosswalks.
 - Never let your child walk anywhere alone, whether to the store, to a friend's house or to the park.
 - Never let your child play outside alone. Predators may cruise neighborhoods looking for unsupervised kids; take turns with other parents in your neighborhood or enlist a trustworthy family member to help.
 - If your child rides bikes, roller blades or skateboards, make sure they are always with two buddies.
 - Report any suspicious strangers or vehicles in the neighborhood to police.
- www.in.gov/dhs/getprepared.
- The end of the school year means more kids are out and about, especially in neighborhoods. Parents and caregivers play an essential role in keeping kids safe while enjoying summer activities.

Summer activity tips:

- Teach kids to appreciate and respect EMS professionals, firefighters and police officers, and when and how to dial 9-1-1 in an emergency.
- Always wear a helmet when biking, skateboarding, roller skating or riding a scooter.
- Always stop at STOP signs and look both ways before crossing the street.
- Use sunscreen and wear sunglasses to protect your skin and eyes from harmful solar rays.
- Use care when eating foods like hotdogs, grapes and hard candy or cut them into smaller pieces to prevent choking.
- Never allow unsupervised children to play near or swim in streams, pools, retention ponds or other bodies of water.

Special Events

Online Holiday Shopping Safety

- Secure your computer. Make sure your computer has the latest security updates installed. Ensure that your anti-virus/anti-spyware software is running and, install a firewall before you begin your online shopping.
- Upgrade your Internet browser to the most recent version available. Review the browser's security settings. Apply the highest level of security available that still gives you the functionality you need.
- Create strong passwords for online accounts. Use at least eight characters, with numbers, special characters and upper and lower case letters. Don't use the same passwords for online shopping websites that you use for logging onto your home or work computer. Never share your login and/or password.
- Do not email sensitive data. Never email credit card or other financial/sensitive information. Email is like sending a postcard. Other people have the potential to read it.
- Do not use public computers or public wireless for your online shopping. Public computers may contain malicious software that steals your credit card numbers and other confidential information.
- Review policies. Review the privacy policy for the website/merchant you are visiting. Know what information the merchant is collecting about you, how it will be used and if it will be shared or sold to others.
- Secure your transactions. Look for the "lock" icon on the browser's status bar and be sure "https" appears in the website's address bar before making an online purchase. The "s" stands for "secure" and indicates that the webpage is encrypted. Some browsers can be set to warn the user if they are submitting information that is not encrypted.
- Make payments securely. Pay by credit card rather than debit card. Credit/charge card transactions are protected by the Fair Credit Billing Act. Cardholders are typically only liable for the first \$50 in unauthorized charges. If online criminals obtain your debit card information they have the potential to empty your bank account.
- Use temporary account authorizations. Some credit card companies offer virtual or temporary credit card numbers. This service gives you a temporary account number for online transactions. These numbers are issued for a short period of time and cannot be used after that period. This is the safest method of shopping online.

Special Events

- Select merchants carefully. Limit your online shopping to merchants you know and trust. Confirm the online seller's physical address and phone number in case you have questions or problems. If you have questions about a merchant check with the Better Business Bureau or the Federal Trade Commission.
- Keep a record of your online transactions, including the product description and price, the online receipt and copies of every email you send or receive from the seller. Review your credit card and bank statements for unauthorized charges.